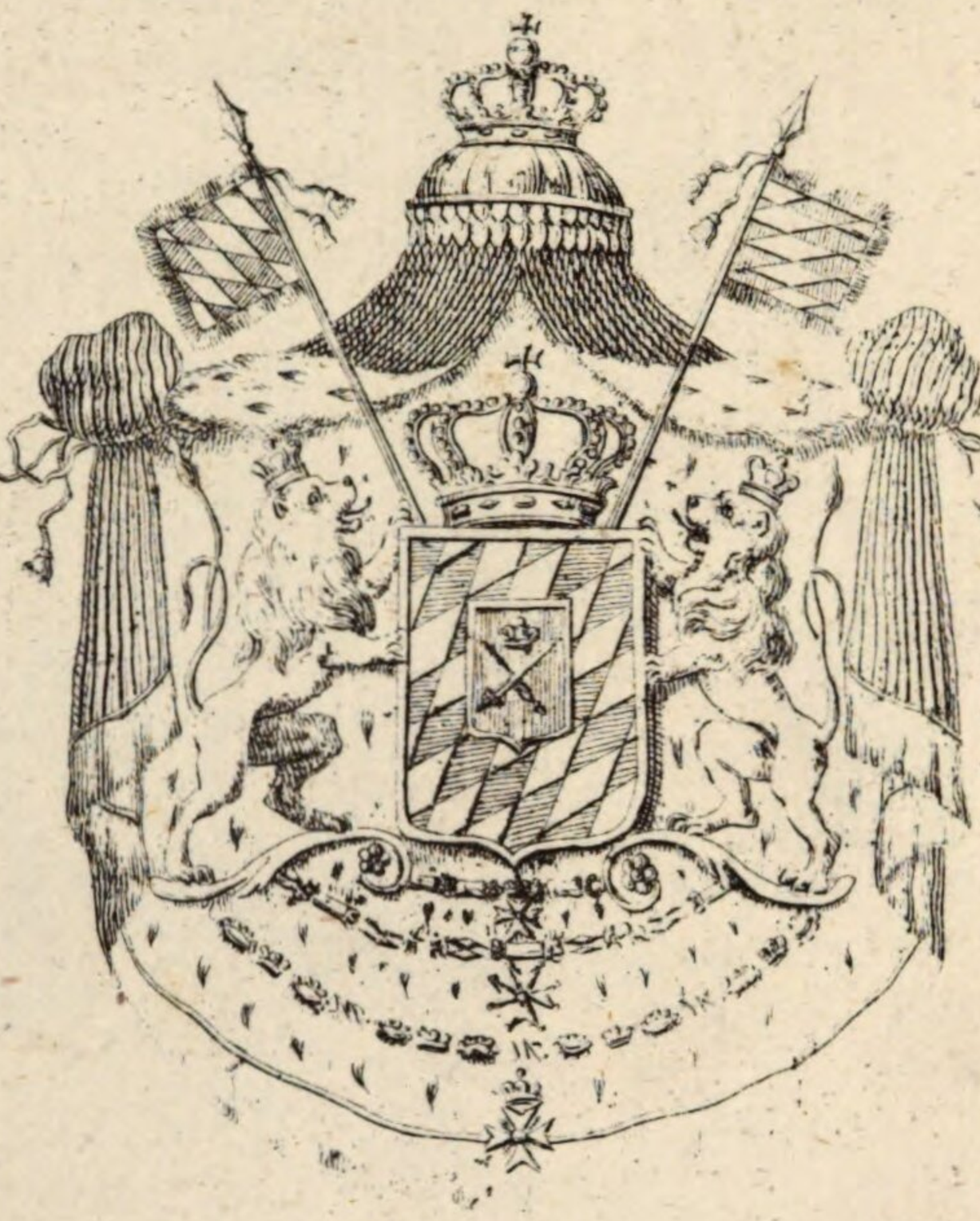
Zool.
314 m. — 1



BIBLIOTHECA REGIA MONACENSIS

<366077779500013

Bayer. Staatsbibliothek

BIBLIOTHECA
REGIA
MONACENSIS

THE

ZOOLOGICAL MISCELLANY;

BEING

DESCRIPTIONS OF NEW, OR INTERESTING

ANIMALS.

BY

WILLIAM ELFORD LEACH, M.D. F.L.S. & W.S. &c.

ILLUSTRATED WITH

COLOURED FIGURES, DRAWN FROM NATURE,

BY R. P. NODDER,

ANIMAL PAINTER, AND DRAFTSMAN IN NATURAL HISTORY.

LONDON:

PRINTED BY B. McMILLAN, BOW-STREET;

FOR E. NODDER & SON, 34, TAVISTOCK-STREET,

COVENT-GARDEN; AND SOLD BY ALL BOOKSELLERS.

1814.

TO

THE RIGHT HONORABLE

SIR JOSEPH BANKS, BART. K. B.

PRESIDENT OF THE ROYAL SOCIETY, TRUSTEE OF THE BRITISH MUSEUM, &c. &c. &c.

THIS MISCELLANY

IS MOST RESPECTFULLY INSCRIBED,

BY HIS MUCH OBLIGED,

AND VERY OBEDIENT SERVANT,

THE AUTHOR.

ADVERTISEMENT.

THE object of this Work is, to publish new subjects as they occur, and to figure those species which, having been confounded with others, require elucidation.

In the Naturalist's Miscellany, and in other works of a similar kind, it has been usual to repeat the generic character whenever different species were given; but as this appears to be unnecessary, we shall on such occasions merely refer to the character, unless it should require amendment.

The Figures, unless mentioned to the contrary, will represent the animals of the natural size.

At the completion of each volume, a Systematic Index, with an Index of Synonyms alphabetically arranged, will be given, and any incorrections that shall have occurred will be noticed.

SCIURUS.

SCIURUS, *Linn., Pall., Gmel., Cuv., Dum.*

CHARACTER GENERICUS.

Dentes incisores duo simplices: *superiores* cuneati, *inferiores* ad latera compressi; *molares* ad utrumque latus *superiores* quinque, *inferiores* quatuor.

Cauda corporis longitudine, compressa, pilosa, disticha.

Pedes antici tetradactyli, *postici* pentadactyli.

SQUIRREL.

GENERIC CHARACTER.

Incisor or *front teeth* simple, two in each jaw; the upper ones wedge-shaped, the under compressed at their sides: *grinding teeth* on each side of the upper jaw, five; of the lower, four.

Tail as long as the body, hairy, compressed, and spreading laterally.

Fore feet with four, *hinder* with five fingers.

The species of this genus are very lively and active, and inhabit the greater portion of the globe, living in trees, and feeding on various kinds of fruits. They are very fond of nuts, which they open by rasping off the small end with their front teeth, and splitting the shell. When eating they sit erect, holding their food in their fore feet, which they use as hands, and covering their body with their broad tail; from which latter circumstance they have derived their name*.

Those species which inhabit the more temperate regions, lay in a hoard of winter provisions, consisting of nuts, acorns, &c. which they deposit in the hollow of a tree, or under the earth.

Squirrels produce from four to seven young at a time, They compose their nests with moss, dried leaves and fibres, which they place in the forked branch of a tree: some of the species have two holes or entrances to their nest, and are said by Pliny to stop up that in the windward side.

* From σκια, a shade, and ερα, a tail.

TAB. I.

SCIURUS PENICILLATUS.

S. pilis fulvo fuscoque mistis ; dorso lineis tribus latè-ribusque pallidis, gulâ ventreque albidis, auribus subrotundatis imberbibus, caudâ ad apicem penicillatâ.

Habitat in Madras.

Mus. Dom. Sowerby.

PENCIL-TAILED SQUIRREL.

Body covered with a mixture of fulvous and brown hair, having three lines on the back, and the sides pale yellowish ; the throat and belly whitish ; ears somewhat rounded, and not tufted ; apex of the tail pencilled.

Inhabits Madras.

This animal was taken in the young state in a library at Madras, where the old one had formed a nest in a large book, into which she had perforated. It was brought alive to England, and was kept some time by Mr. Carlisle, who, after its death, gave it to Mr. Sowerby ; and to the kindness of the last-mentioned gentleman, we are indebted for the figure, which represents the species one-third of the natural size.

This squirrel agrees so exactly with the descriptions of the *Sciurus Palmarum, Linn.; Le Palmist, Buff.*, that were it not for the curious tuft at the extremity of the tail of our animal, (of which they make no mention), we should not hesitate to consider them as one species.

ORIOLUS.

ORIOLUS, *Linn.*, *Gmel.*, *Shaw*, *Lath.*, *Cuv.*, *Dum.*
XANTHORNUS, *Brisson.*

CHARACTER GENERICUS.

Rostrum conicum, convexum, acutissimum, rectum basi rotundato: *mandibula superiore* paulo longiore.
Pedes ambulatorii; *digitis* tribus anticis, uno postico.

ORIOLE.

GENERIC CHARACTER.

Beak conic, convex, very sharp, and strait, with the base rounded; the *superior mandible* rather longest.
Feet formed for walking; three *toes* before, and one behind.

The birds of this genus, for the most part, inhabit the Tropics; they are gregarious, and live on fruits, grains, and insects. Some of the species shew very great ingenuity in the construction of their nests, which are composed of fibres most curiously interwoven, and suspended from the branches of trees, many being found on the same spot, and sometimes attached to one another.

TAB. II.

ORIOLUS MEXICANUS.

O. olivaceus, subtus flavus, gulâ facie remigibus caudâque atris, remigibus secundariis externè tectricibusque albis, rectricibus duabus mediis exceptis sordido-albo-terminatis, rostro nigro, pedibus nigricantibus.

Oriolus Mexicanus. *Linn. Syst. Nat.* edit. 12, i. 162, 13.

O. Xanthornus. *Gmel. Linn.* i. 391, 13.

Lesser Bonana Bird. *Edwards' Gleanings*, p. 68, t. 243?

Lesser Bonana Oriole, Var? *Lath. Syn.* i. 2, 439?

WHITE-SHOULDERED BANANA ORIOLE.

Olive-yellow oriole, with the belly bright yellow; throat and face deep black, united; quills of the wings deep black; wing-coverts and the outer edges of the secondaries white; tail deep black and, excepting the two middle feathers, tipped with dirty white; beak black; legs blackish; the base of the upper mandible pale.

The specimen from which the above description and the figure were taken, was killed at St. Andrew's, in Jamaica, by Mr. John Wiles, who most obligingly permitted me to examine it, and at the same time informed me that it was very common in that district, and that it fed on the banana, guava, and other fruits.

Drawn Engraved & Published by R.P. Nodder. January 1814

It is very nearly allied to the *Oriolus Xanthornus*, given by Dr. Shaw in the Naturalist's Miscellany, Plate 243, from which species however it appears to me to be sufficiently distinct; and in this opinion Mr. Bullock coincides.

In the figure referred to by Linnæus, in Edwards' Gleanings, the wing-coverts externally have a few black markings, and the bill is longer, narrower, and incurved; I have therefore affixed a doubt to the reference.

As the distinctions between *O. Xanthornus* of Shaw and this species are rather obscure, it may not be deemed improper to give the leading marks of distinction, taken from two specimens in Mr. Bullock's Museum.

ORIOLUS XANTHORNUS.

O. flavus, facie ante oculos gula pectore anticè tectricibus remigibus caudâque atris, tectricibus albo-terminatis, remigibus secundariis externè albis, rectricibus externis duabus utrinque sordido-albo-terminatis, rostro nigro: mandibula superiore basi sub-striata, pedibus nigricantibus.

Oriolus Xanthornus. *Gmelin Linn.* i. 391, 13; *Shaw Nat. Miscel.* vol. 7, Pl. 243.

Lesser Bonana Oriole. *Lath. Synop.* i. 2, 438, 25.

Le petit cul-jaune de Cayenne. *Buff. Ois.* iii. 247; *Planch. enlum*, tab. 5, f. 1.

BLACK-SHOULDERED BANANA ORIOLE.

Yellow Oriole, with the face before the eyes, the throat and middle of the breast deep black; wing-coverts deep black, tipped with white; secondary quills of the wings externally white; the two external quills of the tail on each side tipped with dirty white; beak black; the base of the upper mandible somewhat striated; legs blackish.

Inhabits Jamaica.

It is readily distinguished from *O. mexicanus*, by the striæ at the base of the upper mandible, which in both of those examined, were similar; by the colour of the wing-coverts, and tips of the tail-feathers. The back and belly are of an uniform bright yellow, whilst the upper part in the preceding species is olive yellow. The black on the face is distinct, being merely placed before the eyes, whilst the black of the throat is continued into the breast.

ACANTHOPHIS.

ACANTHOPHIS, *Daudin.*
TRIGONOCEPHALUS, *Oppel?*

CHARACTER GENERICUS.

Caput obtusum depressum, ovato-trigonum, magnum: *vertex* squamulis imbricatus; *mandibula superior* dentibus elongatis incurvis acutissimis veneniferis, preputio protectis.

Abdomen scutis obtectum; *cauda* subtus scutigera, apicem versus squamulifera, apice aculeato; *anus* inermis, posticè limbo squamoso serie simplice.

ACANTHOPHIS.

GENERIC CHARACTER.

Head large, ovate-triangulate, obtuse, and depressed, the back part above covered with the same kind of scales as those of the back: *upper jaw*, on each side, with long, incurved, acute, and poisonous teeth, covered (at the base at least,) with a retractile fleshy socket.

Belly with broad and undivided scales; under part of the *tail* with undivided broad scales, like those of the belly, but towards the point they are divided, and form a double row, set alternately; tip of the tail with a spine-like process; hinder edge of the vent with a single row of scales.

Before consulting the authors referred to above, I had named this genus *Ophis*, and the species *acanthurus;* and although the term *Acanthophis* be adopted from having the right of priority, yet it is not used without some doubts of its stability as a generic name; the sting-like process at the extremity of the tail, seeming to be rather an indication of specific than of generic distinction; but this can only be determined from the discovery of other species.

TAB. III.

ACANTHOPHIS BROWNII.

A. nigricans, labio inferiore albido, superiore anticè transversim impresso, caudâ sub-abruptè corpore angustiore: apice lateraliter compresso.
Habitat in Australasia.

BROWN'S ACANTHOPHIS.

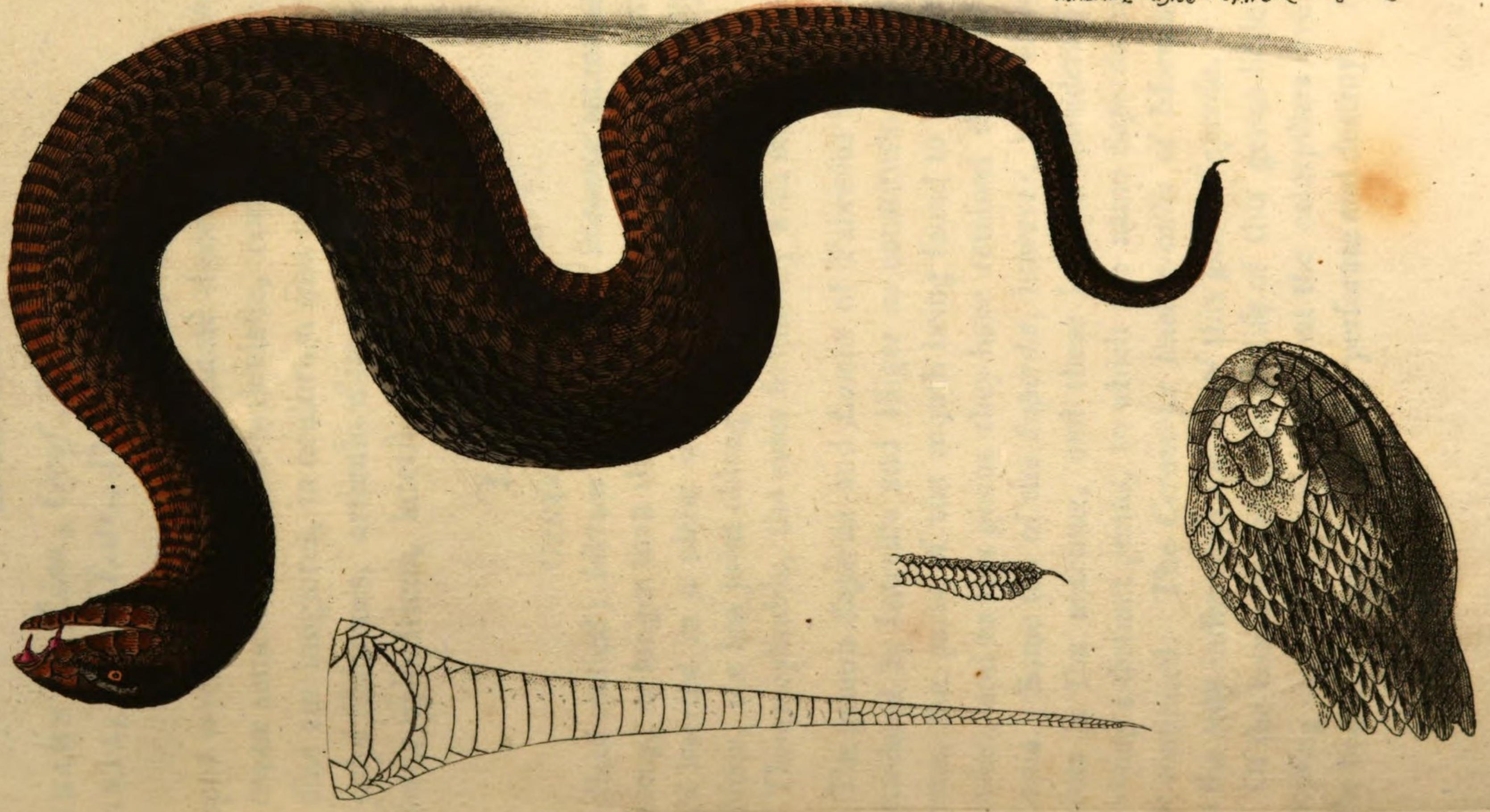
Body blackish; under lip whitish, the upper with a transverse groove in front; tail somewhat abruptly narrower than the body, with the apex laterally compressed.

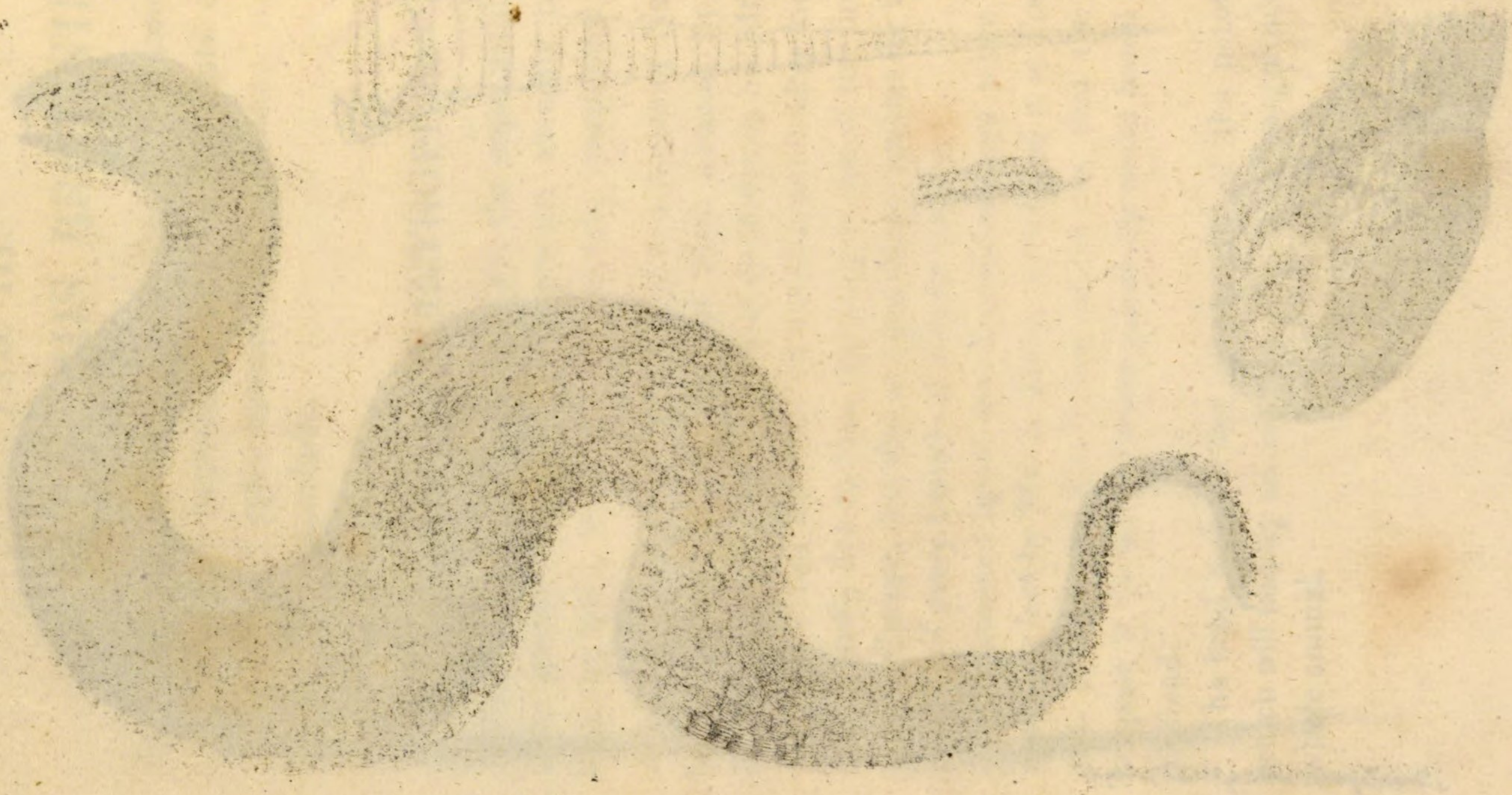
This highly interesting animal is a native of New Holland, and was first noticed at Port Jackson by Robert Brown, Esq. F. R. S. &c. who described it in his MS. under the title of *Boa ambigua*. I have named it after him, as a tribute justly due to him, not only as one of the first botanists in Europe, but also as a gentleman zealous for the promotion of every branch of natural history.

The annexed figure and description were taken from a specimen lent by Mr. A. Huey, who killed it at Port Jackson. Both he and Mr. Brown inform me, that the natives suppose it to be the most poisonous snake found in New Holland.

The head and tail are represented of the natural size, which will convey an accurate idea of the magnitude of the whole animal.

Drawn from Nature & Published by R. P. Nodder, Tom. 2. Pl. 161.





LAMIA.

CERAMBYX, *Linn.*, *Geof.*, *Gmel.*
LAMIA, *Fabr.*, *Latr.*, *Donov.*

CHARACTER GENERICUS.

Caput verticale; *labrum* facillimè discernendum; *antennæ* setaceæ, decem-articulatæ, corporis longitudine aut longiores, in oculorum sinu interno insertæ; *palpi* filiformes, articulo ultimo elongato-ovato.
Thorax cylindricus, lateribus sæpe unituberculatis.

LAMIA.

GENERIC CHARACTER.

Head vertical; *labrum* very distinct; *antennæ* setaceous, as long, or longer than the body, composed of ten joints, and inserted in a niche in the front of the eyes; *palpi* filiform, the last joint oblong-ovate.

Thorax cylindric, the sides frequently with one tubercle.

The genera *Saperda* and *Lamia* of Fabricius have been considered by Latreille and Illiger as constituting but one genus, the parts of the mouth being found to be exactly similar; and to this genus they have retained the title of *Lamia*. Some few of the *Saperdæ*, however, have eleven joints in the antennæ, and these I have considered as forming a distinct genus, to which the name *Saperda* may be continued. The *Cerambyx lineato-collis* of Marsham, is the only indigenous species of this genus *Saperda*.

Of the economy and mode of life of this genus little or nothing more is known, than that the caterpillars live in the bodies of trees, which they perforate and destroy.

TAB. IV.

LAMIA PICTA.

L. nigra flavo-picta, thoracis lateribus pectore antennis pedibusque quatuor anticis cærulescente-pulverulentis, elytris punctatis.

Habitat in Australasia.

Museo Dom. Macleay.

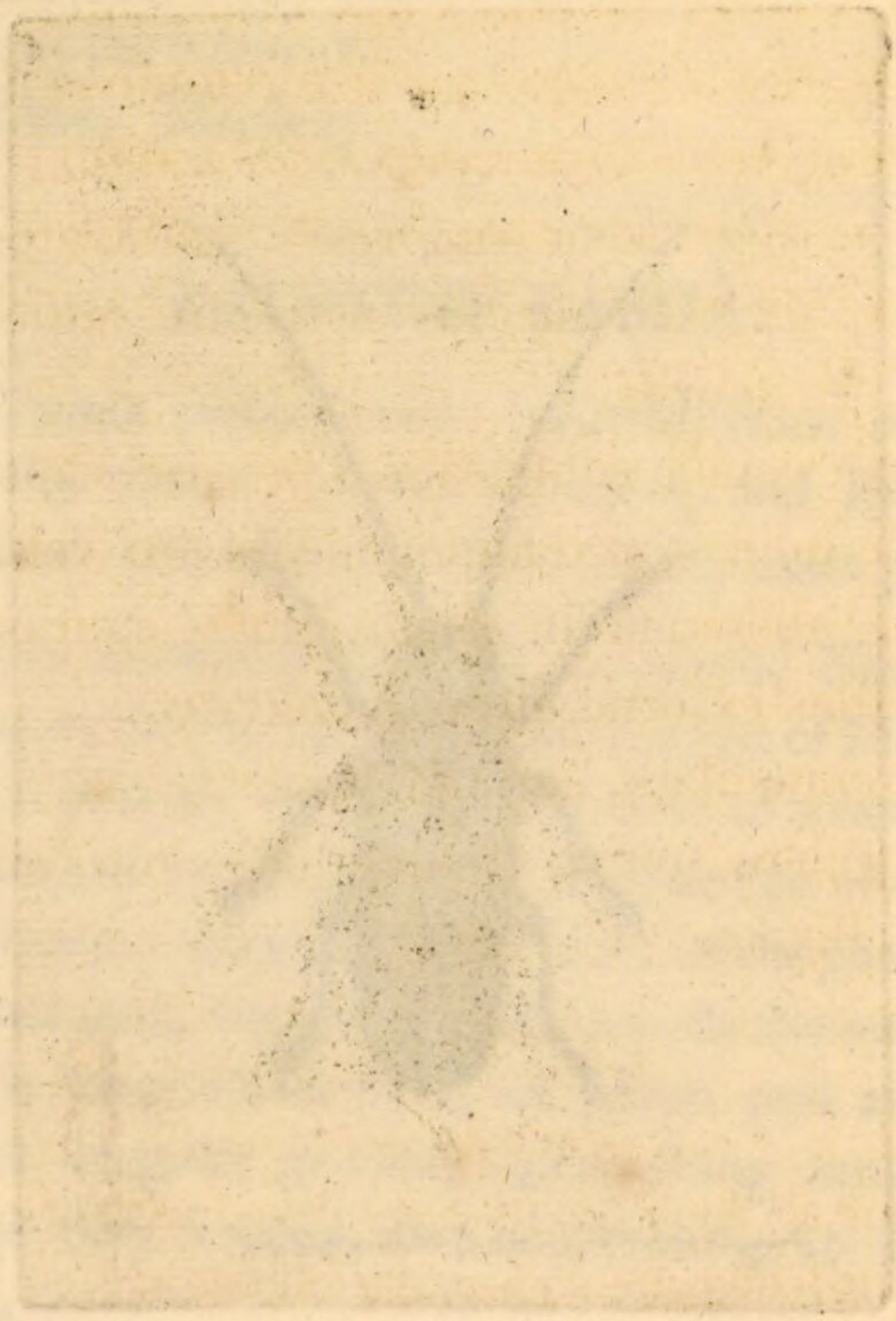
PAINTED LAMIA.

Black Lamia painted with yellowish-fawn colour; the sides of the thorax, breast, antennæ, and four anterior feet, covered with a bluish bloom; wing-cases punctured.

This very beautiful Lamia is a native of New Holland, and was figured from the extensive collection of Mr. Macleay, which is so liberally open for the benefit of science.

The first joint of the antennæ, and the tips of the others, have no bloom; tubercles on the sides of the thorax conic; elytra punctured, the punctures towards the suture being arranged in longitudinal lines, on which part also are two lengthened irregular grooves, approaching nearer to one another as they descend, but not reaching to the apex of the elytra.

4
Drawn Engraved & Published by R.P. Nodder. Jan.y 1814



PAPILIO.

PAPILIO, *Linn.*, *Fabr.*, *Cram.*, *Dru.*, *Donov.*, *Latr.*, *Cuv.*, *Dum.*

CHARACTER GENERICUS.

Antennæ capitatæ, capitulo subarcuato, ob-conico-ovato, vel elongato-obovato.

Palpi brevissimi clypeum vix attingentes, ad faciem appressi, non prominuli, articulis duobus primis subæque longis, tertio minimo subobsoleto.

Pedes in utroque sexu conformes, ambulatorii, unguibus distinctis simplicibus instructis, anticis nec minutis, nec spuriis.

Alæ anticæ sæpiùs subfalcatæ; *posticæ* sæpe caudatæ, margine interno pro abdomine libero vel exciso vel plicato, abdomen in canali subtus non excipiente; marginibus externo et anali dentatis.

LARVA tentaculata, carnosa, furcata.

PUPA angulata, antice bimucronata, filo transverso in medio alligata.

BUTTERFLY.

GENERIC CHARACTER.

Antennæ, at their points, furnished with a conic-ovate or lengthened-obovate somewhat arcuate club.

Palpi very short, pressed close to the face, and scarcely reaching the clypeus; the two first joints of equal length, the third minute and nearly obsolete.

Feet in both sexes alike, and formed for walking, with distinct simple claws, the anterior pair like the others in structure and size.

Anterior wings generally somewhat falcate; hinder ones often tailed; the internal margin excised or folded, to admit of free play for the abdomen.

CATERPILLAR tentaculated, fleshy, and furcate.

CHRYSALIS angulated, with two processes before; it fastens itself by a transverse thread.

The species of this genus, which constitutes the most beautiful part of the creation, are found chiefly in the warmer regions, very few occurring in the temperate parts of the world. Their flight is extremely rapid; their wings, when at rest, stand erect over their bodies.

Papilio Machaon is the only species that has been clearly ascertained to inhabit Britain, *P. Podalirius* having been introduced into the British Fauna on very dubious authority.

TAB. V.

PAPILIO MACLEAYANUS.

P. alis caudatis glaucis, limbo communi nigro albo-punctato ; anticarum maculis duabus viridibus.

Habitat in Australasia.

Mus. Dom. Macleay.

MACLEAY'S BUTTERFLY.

Wings tailed, glaucous green, with a black border spotted with white, the anterior ones with two irregular spots of green.

I am indebted to Dr. Hinton Spalding for this new and elegant species, which was discovered at Port Jackson by Mr. A. Huey.

I have named this butterfly after my much-esteemed friend, Alexander Macleay, Esq. Sec. Lin. Soc. &c. to whom I cannot sufficiently express my full sense of his repeated marks of kindness and friendship.

The tails appear to have been slightly injured, but the other characters are so strong as to distinguish it from every known species of the genus.

Papilio Nereus of Linnæus, *Clerck, Ic. Ins. rar.* Tab. 30 ; *Cramer, Pap. ex.* Tab. 187, A. B. and of *Drury*, vol. 2, Tab. 4, Fig. 1 and 2, and a *Papilio* which appears to me to be another species, figured by Cramer, Tab. 378, as the other sex of *Nereus*, approach nearer to this species than any other ; whilst *P. Sarpedon* and *Agamemnon*, seem to form the connecting links betwixt these and the genuine long-tailed *Papiliones*.

LANIUS.

LANIUS, *Ray, Linn., Lath., Cuv.*

CHARACTER GENERICUS.

Rostrum rectiusculum lateraliter subcompressum, basi nudo; mandibula superiore apice curvata, denticulo utrinque instructa; ore sæpissime ciliato.

Pedes ambulatorii, digitis tribus anticis, uno postico: digito externo ad basin cum intermedio connexo.

SHRIKE.

GENERIC CHARACTER.

Beak strait, with the sides somewhat compressed, and the base naked; the upper mandible curved towards the apex, and armed on each side with a little tooth; mouth generally ciliated, or bearded.

Feet formed for walking, with three toes before, and one behind: the external toe connected with the middle one at the base.

The *Shrikes* prey on small birds, and some of the species also on insects, which they transfix on thorns, devouring the bodies, and leaving the wings behind. They generally tear their food in pieces; but there are several instances, of mice having been found entire in the stomach of L. Excubitor.

Their nests are simply constructed with fibres and moss; sometimes lined with softer materials. Their note is cla-

morous and very disagreeable, especially when they are disturbed.

Linnæus, Latham, and Gmelin, place the Shrike between the genera Strix and Psittacus; but Brisson and Cuvier assign it a place in the Passerine order.

TAB. VI.

LANIUS LINEATUS.

L. ater, transversim albo lineatus, rostro pedibusque nigris.

Habitat apud Berbice.

Mus. Dom. Macleay.

LINEATED SHRIKE.

Deep black, with transverse white lines; the beak and feet black.

This elegant bird, which is figured from Mr. Macleay's collection, inhabits Berbice, and is very nearly akin to *Lanius Doliatus* of Linnæus; from which species, however, it is most readily distinguished by the want of two or three longitudinal white spots on the head.

Lanius Doliatus inhabits Cayenne, where it is very common. Brisson has given a very good figure of it in his work on Birds.

Drawn & engraved & Published by R.d P. Nodder Feb.y 1814

protrude their shell above the surface: from this end they extend a long fleshy trunk (composed of rings), which is easily broken, and which they withdraw on the slightest appearance of danger.

Many of the species are taken for the table, by means of a barbed spear, which is thrust suddenly into their shells, and immediately turned; but unless very great caution be used in removing the sand from round the shell, the animal quits it, and sinks into the sand. This curious circumstance was first mentioned to me by Mr. Macleay, and Mr. Bullock assures me that he has often witnessed it.

TAB. VII.

SOLEN CEYLONENSIS.

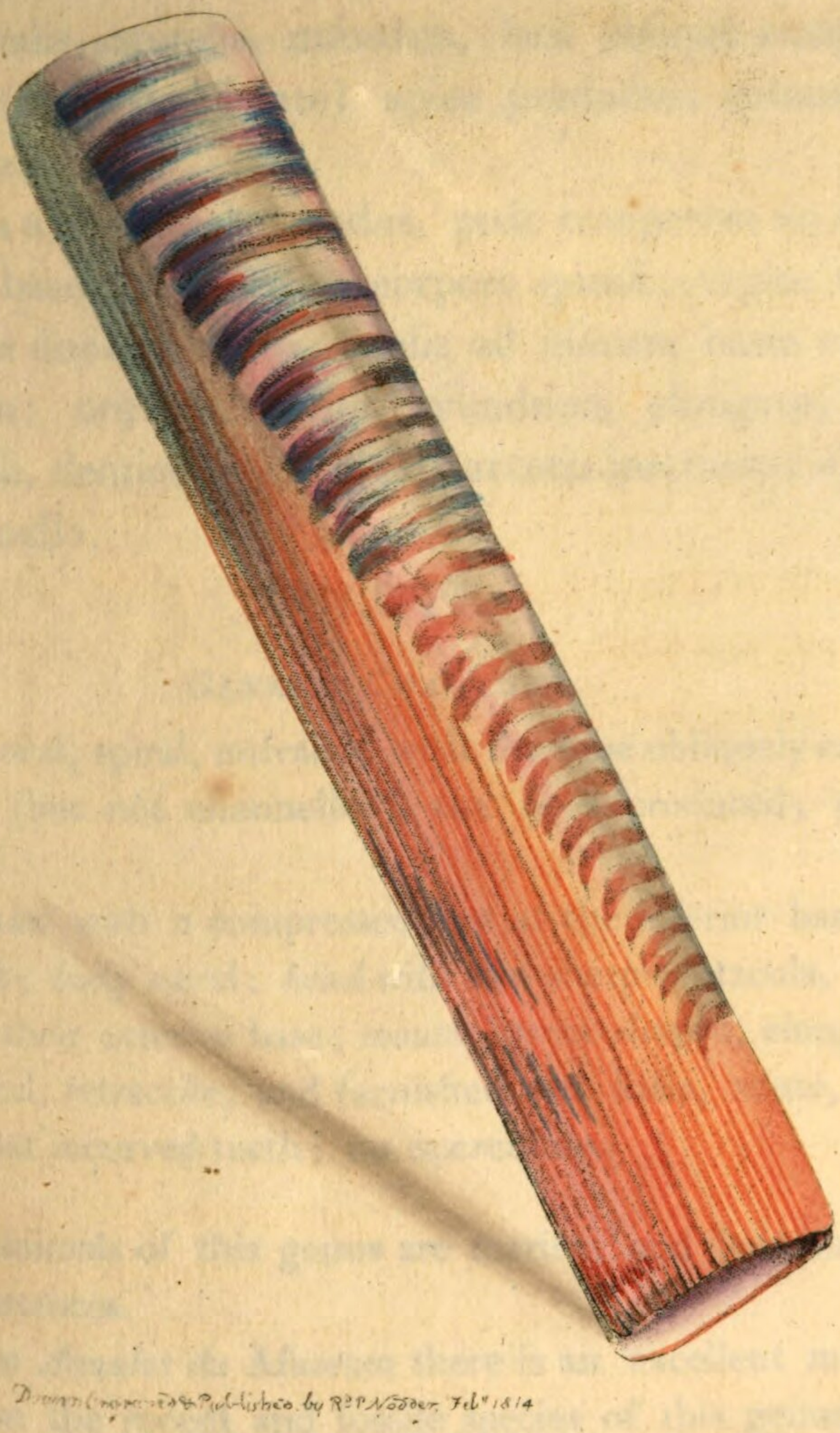
S. testa recta, una extremitate rotundata, altera obliquè truncata, cardine terminali, in utraque valva unidentata, dentibus inæqualibus.

Habitat in Ceylon.

CEYLON RAZOR-SHELL.

Shell strait, with one extremity rounded, the other obliquely truncate; the hinge terminal, with one tooth in each valve; the teeth unequal.

Inhabits Ceylon, where it seems not to be an uncommon species. The striæ at the base (as usual in all the genuine Solenes when decorticated), run longitudinally, and turn abruptly in a transverse direction, giving an appearance to the shell, of being obliquely divided into two equal parts, by a line running in a diagonal direction from one corner to the other.



Drawn Engraved & Published by R.P. Nodder Feb.y 1814

VOLUTA.

VOLUTA, *Linn., Cuv., Lam.*

CHARACTER GENERICUS.

Testa ovalis, spiralis, univalvis, basi obliquè emarginato, (non canaliculato), apice producto; columella plicata.

VOLUTARIUS trachelepodus, pede compresso ad cervicis basin inferiorem; corpore spirali; capite tentaculis duobus acutis, oculis ad illorum basin exteriorem; ore rostriformi, cylindrico, elongato, retractili, denticulis acutis subcurvatis instructo; operculo nullo.

VOLUTE.

GENERIC CHARACTER.

Shell oval, spiral, univalve, with the base obliquely emarginated (but not channelled), the apex produced; pillar folded.

ANIMAL with a compressed foot at the inferior base of the neck; *body* spiral; *head* with two sharp tentacula, with eyes at their exterior base; *mouth* invert-shaped, elongate, cylindrical, retractile, and furnished with little, acute, and somewhat incurved teeth; no operculum.

The animals of this genus are marine, and feed on animal substances.

In the *Annales du Museum* there is an excellent monograph on the recent and fossile species of this genus, by Professor Lamarck.

TAB. VIII.

VOLUTA SUBNODOSA.

V. testa luteo-fulvescens glabra tenuè striata ferrugineo irregulariter strigata; apice valde producto, simplici; anfracto basilari ad apicem subnodoso.

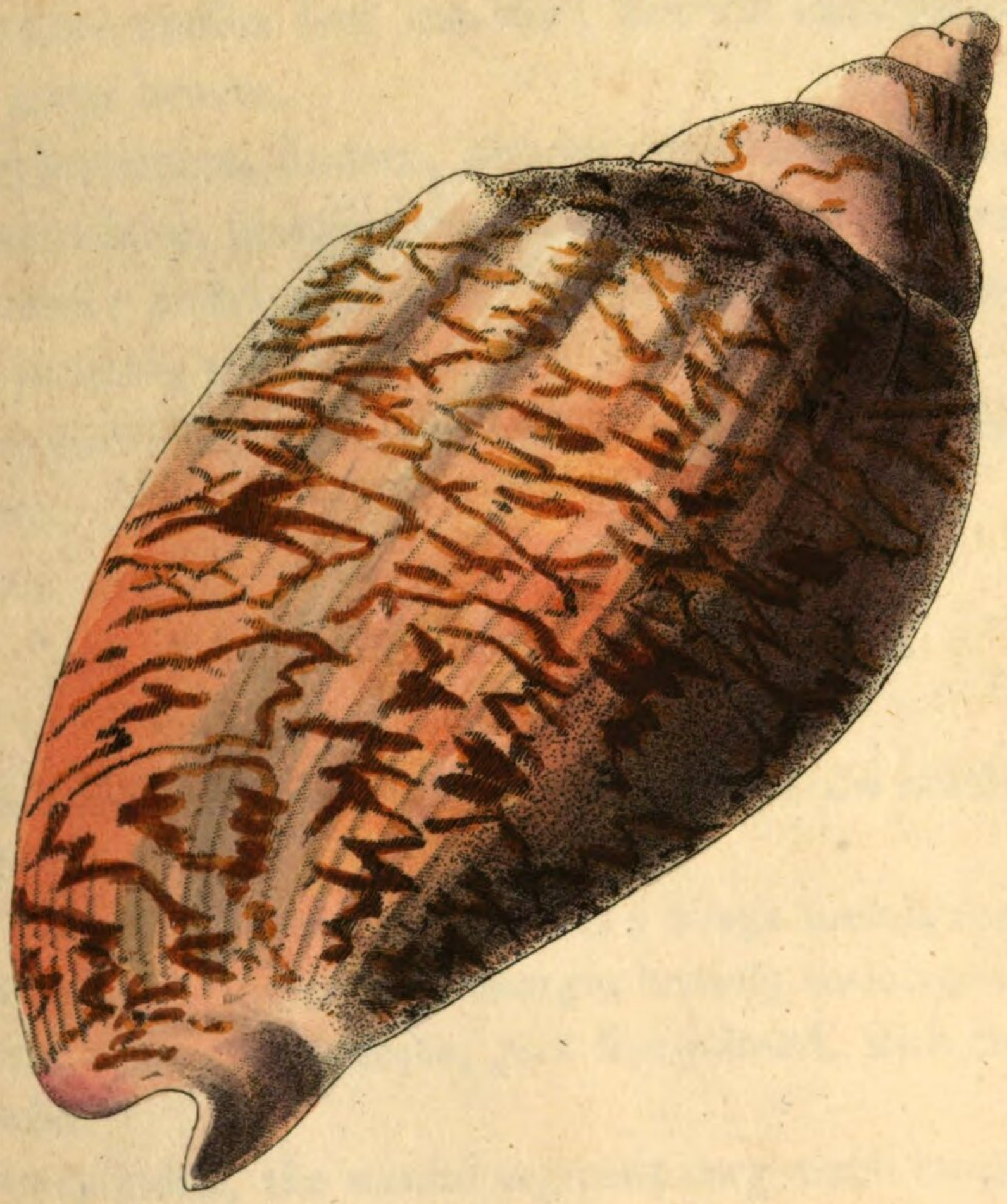
Habitat

In Mus. Britannico, et Dom. Bullock.

SLIGHTLY-KNOTTED VOLULE.

Shell luteous, inclining to fulvous, slightly striated, irregularly streaked with rust colour; spire much produced, and simple; the body volution towards the apex, with a few slightly elevated knots.

The habitat of this very beautiful shell is not known. There is a specimen in the collection of Mr. Bullock, which he most kindly lent me for examination, and another in the British Museum.



Drawn Engraved & Published by R.P. Nodder Feb.y

PHASMA.

PHASMA, *Lecht., Fabr., Latr.*
MANTIS, *Linn., De Geer., Oliv.*
SPECTRUM, *Stoll., Lam.*

CHARACTER GENERICUS.

Antennæ ante oculos ferè insertæ; *labrum* emarginatum; *palpi* breves.

Corpus cylindricum, lineare, alatum; *alæ* membranaceæ, reticulatæ, margine costali latè coriaceo; *elytra* brevissima; *pedes* simplices; *tarsis* quinque-articulatis; *pulvillis* solidis.

Thorax cylindricus, segmento secundo, antico maximè longiore.

PHASMA.

GENERIC CHARACTER.

Antennæ inserted almost before the eyes; *labrum* notched; *palpi* short.

Body cylindric, linear, and winged; *wings* membranaceous, reticulated, the anterior margin broadly coriaceous; *elytra* very short; *legs* simple, *feet* five-jointed, with the *pulvilli* solid.

Corselet cylindric, the second segment very much longer than the first.

Mantis gigas, and *bispinosa* of Shaw's Naturalist's Miscellany, Plates 43 and 323, are referable to this genus, of which the following species is a very good example.

TAB. IX.

PHASMA VIOLESCENS.

P. viridis, elytrorum latere externo flavescenti; alis violescentibus, costa viridi; femoribus quatuor posticis subtus spinulosis.

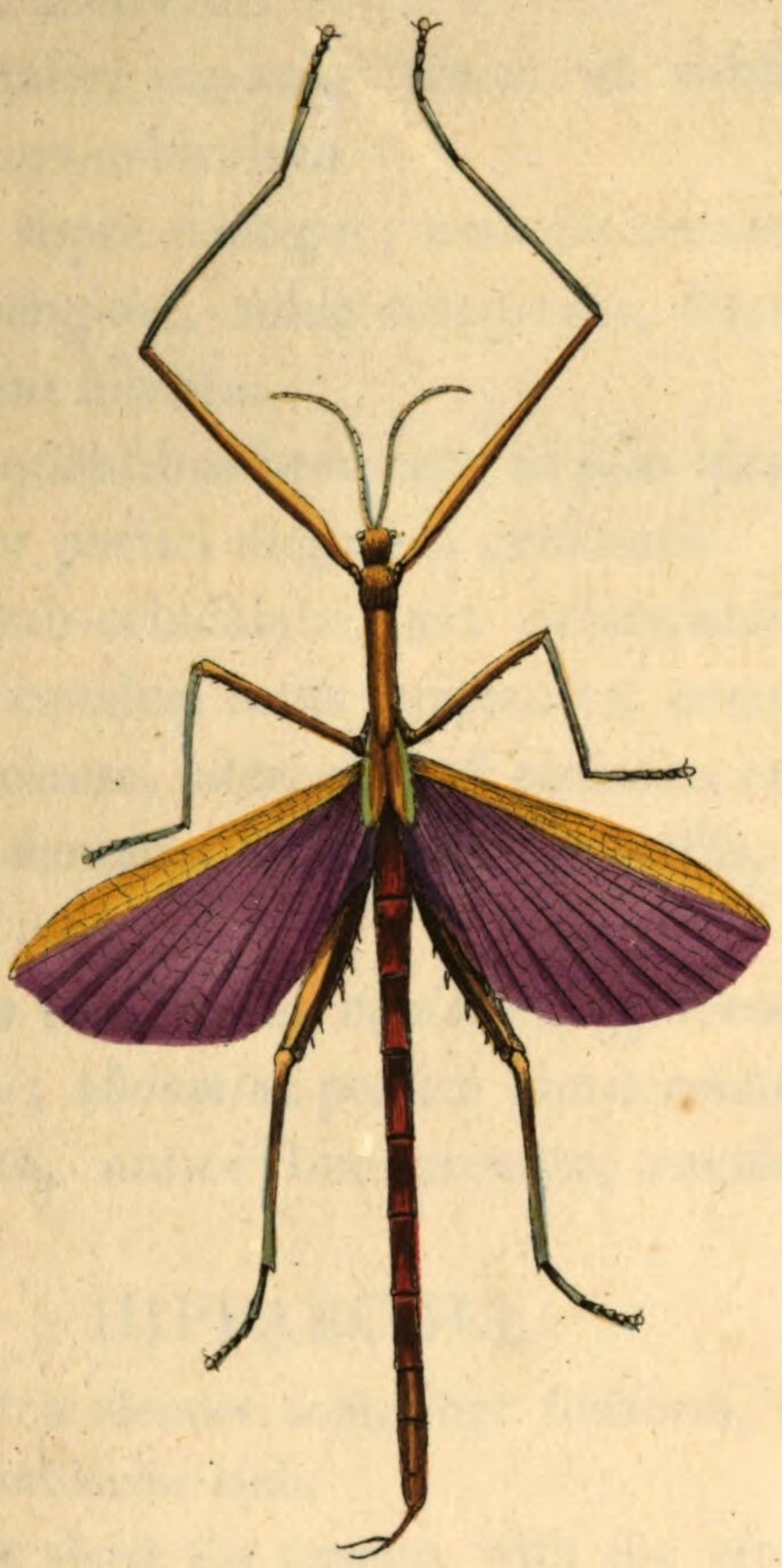
Habitat in Australasia.

Mus. Dom. Macleay.

VIOLET-WINGED PHASMA.

Green, with the external edge of the elytra yellowish; the wings, with the exception of the coriaceous margin, purplish; the four hinder thighs spiny beneath.

Inhabits New-Holland, and is figured from the splendid collection of Mr. Macleay. It is more nearly allied to *Phasma Rosea* of Fabricius, than to any other species with which I am acquainted; but it may be readily distinguished by the colour of the wings, and by the long tooth under the middle part of the hinder thighs. See *Stol. Spec.* Tab. 5, fig. 17.



Divann Engraved & Published by R.P Nodder Feb.y 1814

HIPPARCHIA.

PAPILIO, *Linn.*, *Oliv.*, *Esp.*, *Cram.*, *Scop.*, *Cuv.*, *Hub.*
HIPPARCHIA, *Fabr.*
MANIOLA, *Schrank.*
NYMPHALIS, *Latreille.*

Antennæ capitatæ, capitulo tenui, et subfuciformi, vel sub-trigono-orbiculato.

Palpi linguam supra contigui; articulo secundo, basilari multo longiore, valde compresso, latere antico squamoso, aut hirsuto.

Pedes antici sequentibus breviores, sæpius hirsutissimi; *Tarsi* quatuor postici unguibus geminatis.

Alæ posticæ sub-orbiculatæ, aut orbiculato-trigonæ, abdomen in canalem infra recipientes, *areola* discoidali posticè clausa, *pterigostiis** radiatim emittente; *marginibus* dentatis, aut dentibus nullis, vel obsoletis.

LARVA sæpius tomentosa, *capite* sub-globoso, anticè sub-depresso; *abdomine* posticè bimucronato.

PUPA angulata, anticè bimucronato, *cauda* tantum suspensa.

HIPPARCHIA.

Antennæ with a slender somewhat fuciform, or somewhat trigonate-orbicular club.

Palpi meeting above the tongue, with the second joint very much compressed, and much longer than the first.

Anterior pair of legs shorter than the rest, and often very hairy; *feet* of the other legs with geminated nails.

* *Pterigostia, Nervi, Venæ auctorum, Anglice, nervures.*

Hinder wings somewhat orbicular, or orbiculate-triangulate, with the internal margin excavated to receive the *abdomen;* the middle cell closed behind, from which part the *nervures* radiate; the other margin entire, or with acute or obtuse indentations.

CATERPILLAR generally downy, with a globular head somewhat compressed in front; the *abdomen* bimucronate behind.

Chrysalis angulated, with the front bimucronate, suspended by the tail.

To this genus the following indigenous species of Butterflies belong, viz. *Papilio Ægeria*, 2. *Megäera*, 3. *Galathea*, 4. *Pamphilus*, 5. *Hero*, 6. *Hyperanthus*, &c.

TAB. X.

HIPPARCHIA BANKSII.

CHARACTER GENERICUS.

H. alis nigris fulvo maculatis; anticis puncto albo; posticis ocello nigro pupilla albido.

Habitat in Australasia.

MUS. Dom. Macleay.

BANKSIAN HIPPARCHIA.

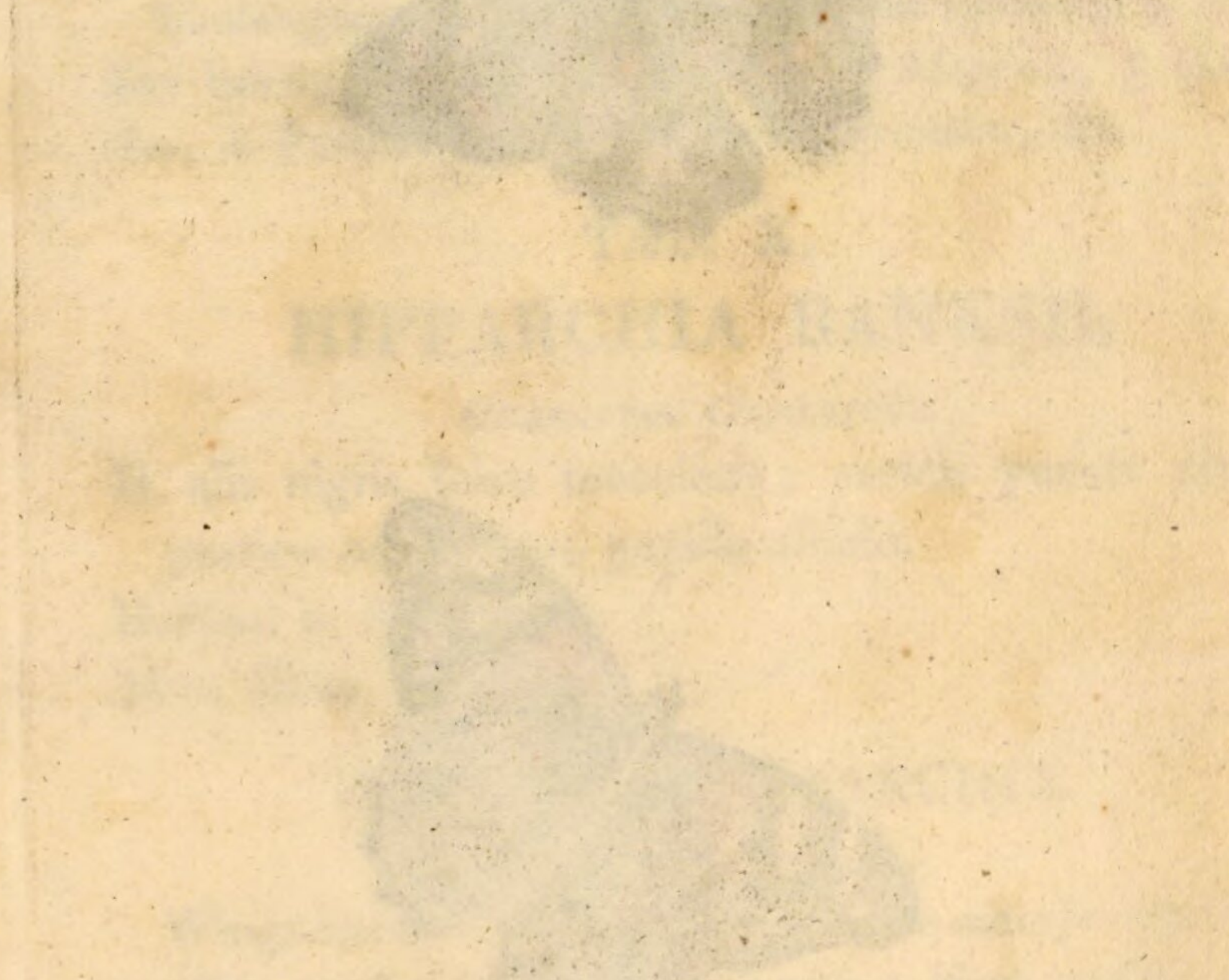
GENERIC CHARACTER.

Wings black, with fulvous spots; the anterior pair with a white speck; the hinder pair with a black ocellus, and white pupil.

Inhabits New Holland.

I have named this elegant species, which is preserved in Mr. Macleay's cabinet, after that munificent patron of science, the Right Hon, Sir Joseph Banks, Bart. &c.

Drawn Engraved & Published. by R. P. Nodder. Feb.y 1814



CERTHIA.

CERTHIA, *Linn.*, *Lath.*, *Gmel.*, *Cuv.*, *Dumer.*

CHARACTER GENERICUS.

Rostrum arcuatum, tenue, acutum; *mandibulæ* æquales. *Pedes* ambulatorii; *digitis* tribus anticis, uno postico majore; *ungues* longi, arcuati, compressi.

CREEPER.

GENERIC CHARACTER.

Beak slender, sharp, and bent; the mandibles equal. *Feet* formed for walking, with three toes before, and one behind larger than the others; *claws* long, bent, and compressed.

The Creepers form an elegant and very natural assemblage of birds, many of which are remarkable for the gaiety and splendor of their colours. The food of the genuine Certhiæ consists entirely of insects, in search of which they are continually running up and down the trunks of trees.

They are found in most parts of the world; their nests are generally placed in some hollow, and are composed of moss or dry grass, lined sometimes with materials of a softer nature.

Some authors have confounded this genus with *Trochilus* (Humming-bird), from which it may readily be distinguished by the acuteness of its beak, which part in the Humming-bird is always more or less blunt.

Latham states the number of tail-feathers as ten, but in our indigenous species *Certhia familiaris*, and in all the

exotic species that I have had an opportunity of examining, twelve quills were always found, which induces me to suppose the mistake to have arisen from the hurry of writing.

TAB. XI.

CERTHIA AUSTRALASIÆ.

C. nigra; capite, dorso, collo, gula, pectoreque sanguineis; tectricibus, remigibusque externè albo marginatis; ventre albido.

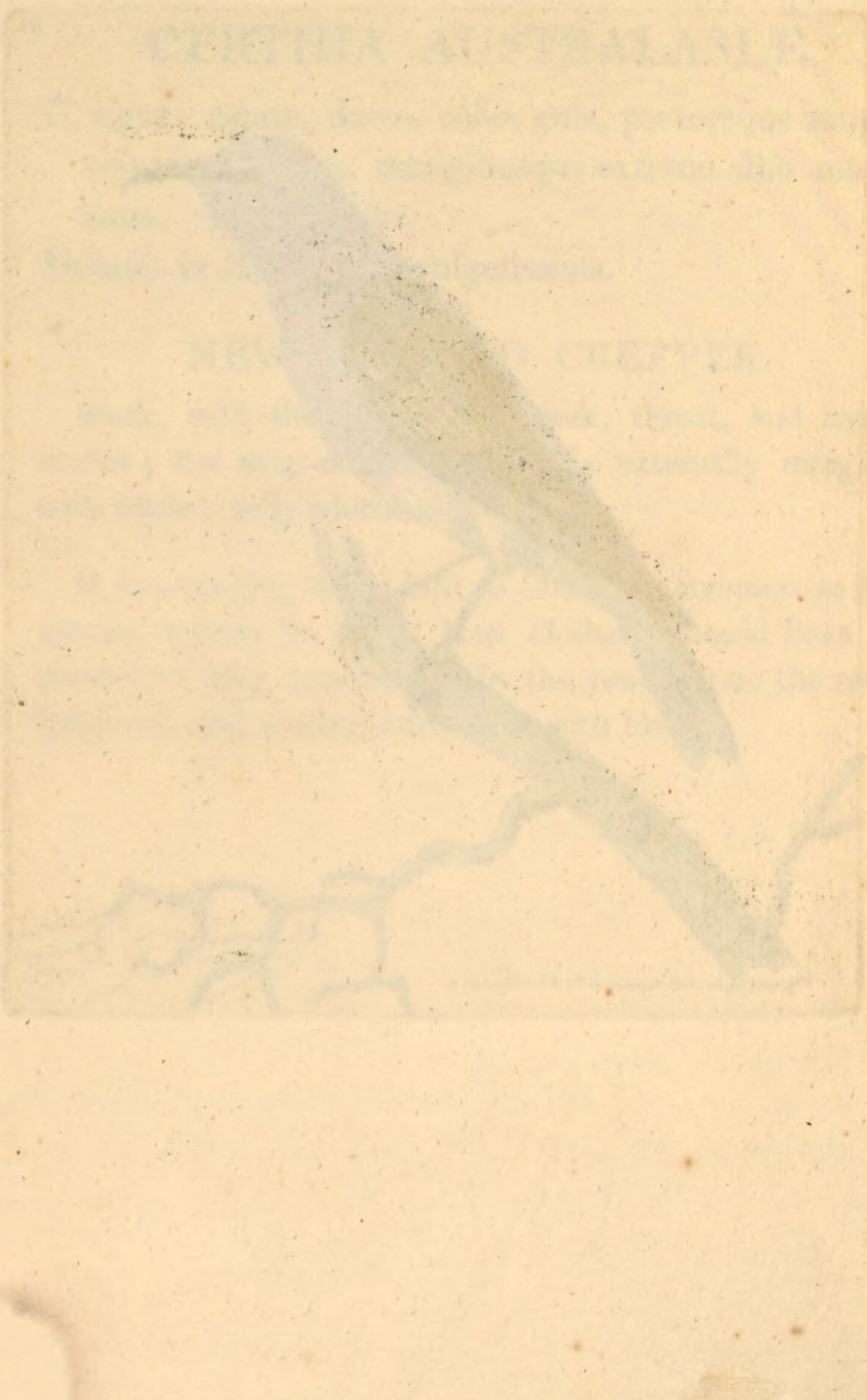
Habitat in Australasia vulgatissima.

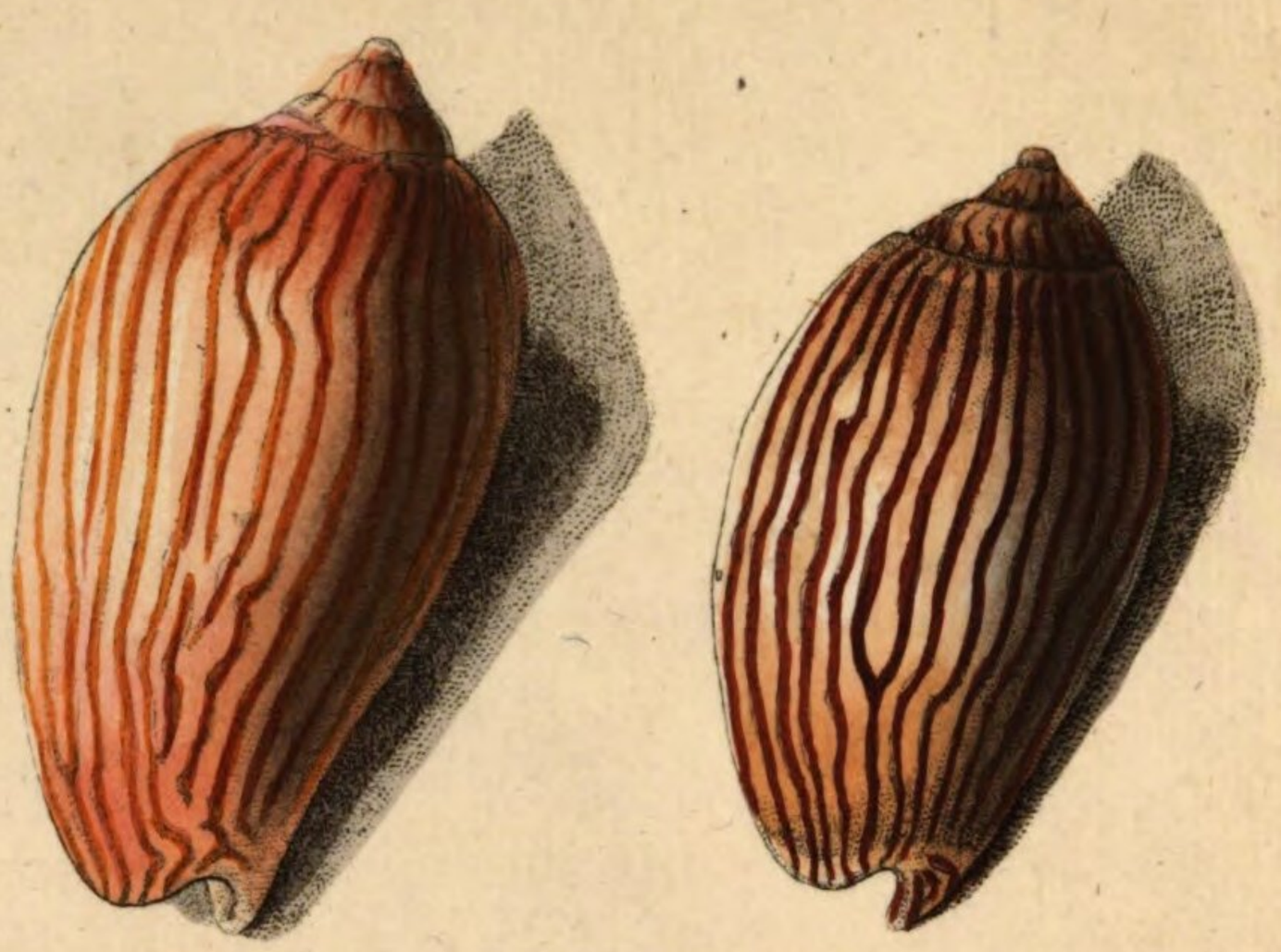
NEW-HOLLAND CREEPER.

Black, with the head, back, neck, throat, and breast, scarlet; the wing-coverts and quills externally margined with white; belly whitish.

It is surprising that a bird so extremely common as this species appears to be in New Holland, should have remained so long unnoticed. In the young state the red is less vivid, and is often intermixed with black.

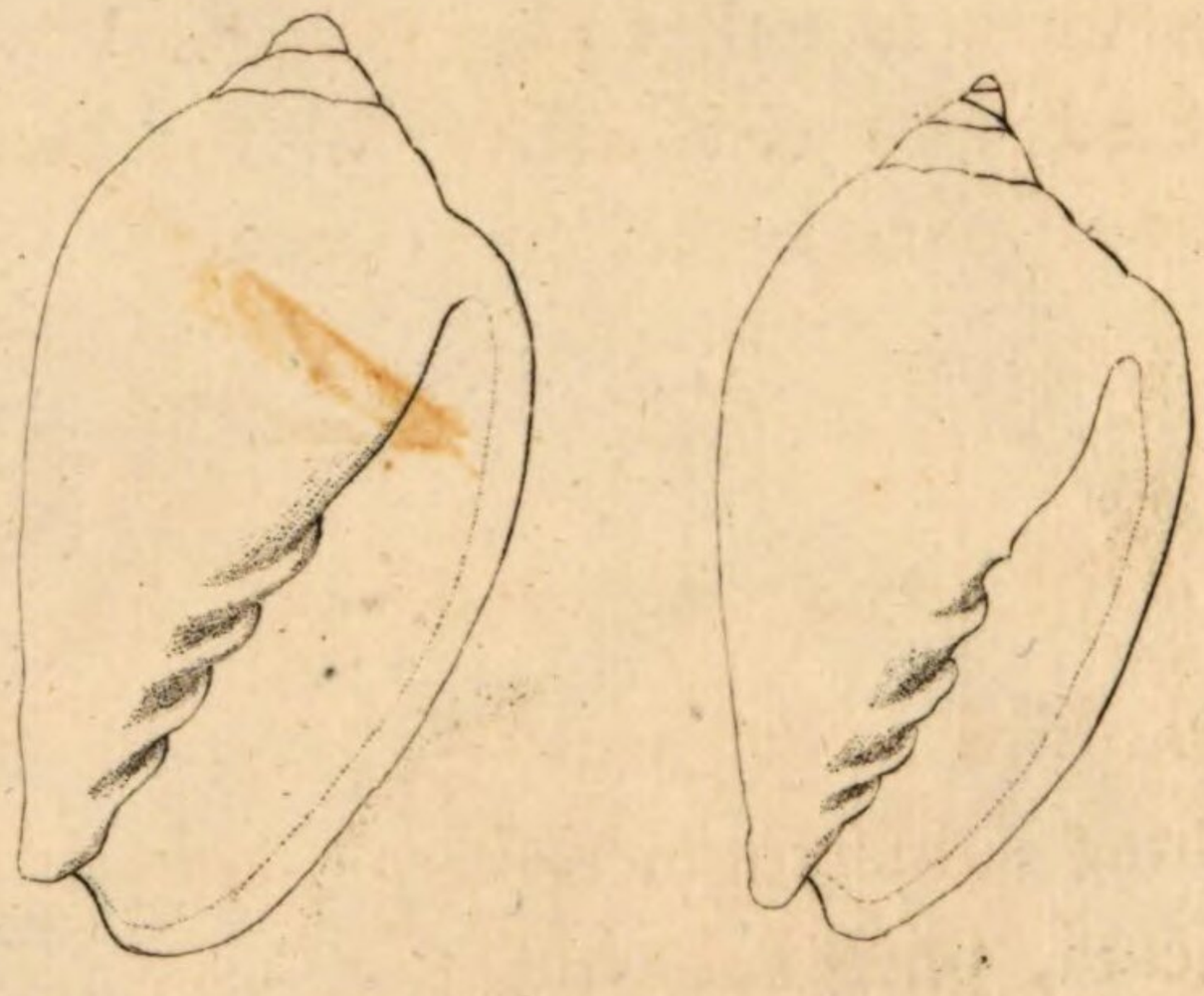
Drawn Engraved & Published by R.P. Nodder. 1814





2

1



Drawn Engraved & Published by R.P. Nobbes 1814.

TAB. XII.

FIG. I.

VOLUTA ZEBRA*.

V. ovato-fusiformis, lævigata, albido-sub flavescens; lineis longitudinalibus fuscis; columellà quintuplicatâ, plicâ superiore subobsoletâ.

Voluta Zebra. *Humphrey's MSS.*

Habitat in Australasiæ mari.

ZEBRA VOLUTE.

Ovate-fusiform, volute, white inclining to yellowish; with longitudinal brown lines; pillar with five folds, the upper one obscure.

This shell, which is aptly named from its resemblance in colour to the zebra horse, is a native of the New-Holland seas, where it seems to be not uncommon.

FIG. II.

VOLUTA LINEATA.

V. ovato-fusiformis, lævigata, subflavicante-albida longitudinaliter subferrugineo-fulvo lineata; columellâ quadriplicata, plicis subæqualibus.

Habitat cum præcedente.

Mus. Dom. Macleay.

* For the generic character, see page 23.

LINEATED VOLUTE.

Ovate-fusiform, smooth volute, of a pale yellowish-white colour, longitudinally lineated with rusty orange; pillar with four nearly equal folds.

Voluta lineata is a native of the same country with the preceding species, to which it bears a strong resemblance; it may however be readily distinguished not only by the number of folds on the columella, but also by the shape of the notch at the base of the mouth.

The outline figures are introduced, to show the distinction in the pillar lip.

AMMOTHEA.

Character Genericus.

Corpus 4-articulatum segmentis omnibus pedigeris, antico in processum capitiformem producto, tuberculum oculis duobus utrinque distinctis gerentem.

Rostrum cylindricum, tubulosum, corpore longius, corporis segmento antico infernè annexum.

Mandibulæ rostro multo breviores, biarticulatæ, articulis æqualibus, secundo didactylo, digitis arcuatis apice conniventibus.

Palpi rostro longiores 9-articulati, sub mandibulis inserti; articulo tertio longissimo.

Pedes octo; *coxis* 3-articulatis, articulo medio longiore; *femoribus* 1-articulatis; *tibiis* articulis duobus, primo sub-breviore; *tarsis* biarticulatis subtus spinulosis, articulo primo minimo; *unguibus* duplicatis, inæqualibus.

Obs. Organa ovifera 9-articulata, pone rostrum sub pedibus anticis fere inserta.

AMMOTHEA.

Generic Character.

Body four-jointed, each segment bearing feet; the first produced into a head-like process, bearing a tubercle, on each side of which are two distinct eyes.

Rostrum cylindric, tubular, longer than the body, and attached to the under part of the first segment.

Mandibles much shorter than the rostrum, composed of

two equal joints, the outermost with a crooked finger and thumb meeting only at their tips.

Palpi longer than the rostrum, composed of nine joints inserted under the mandibles, the third joint very long.

Feet eight; *coxæ* with three joints, the middle one longest; *thighs* one-jointed; *tibiæ* two-jointed, the first joint shortest; *tarsi* spiny beneath, two-jointed, the first articulation minute; *nails* double, unequal.

The organs on which the female carries her eggs are placed behind the rostrum, nearly beneath the first pair of feet*.

This interesting and curious genus is nearly allied to *Nymphum*, of which I shall give some account in the next Number.

TAB. XIII.

AMMOTHEA CAROLINENSIS.

A. corpore toto brunneo-testaceo; dorso tuberculis tribus trigonis.

Habitat in Carolinæ Australis mari.

CAROLINA AMMOTHEA.

Body entirely brown-testaceous; back with three triangular tubercles.

For this singular species, which constitutes a new genus, I am indebted to Mr. Latham of Compton-street, who received two specimens from South Carolina, which were caught on an anchor that had been recently drawn from the bottom of the sea.

* One of these organs is represented in a detached state in the annexed Plate.

Drawn Engraved & Published by R. Nodder

SCUTELLERA.

SCUTELLERA, *Lam., Latr.*
CIMEX, *Linn., Geof., De Geer, Wolff.*
TETYRA, *Fabr.*

CHARACTER GENERICUS.

Scutellum longius quam latius abdomen penitus supertegens.
Thorax antice valde angustatus.
Caput subtrigonum ad oculos in thoracem immersum; *vertex ocellis* duobus transversim dispositis; *antennæ* articulo secundo tertio breviore.

SHIELDBUG.

GENERIC CHARACTER.

Scutellum longer than broad, entirely covering the upper part of the abdomen.

Thorax very narrow before.

Head somewhat triangular, inserted even to the eyes into the thorax; upper part or vertex with two little eyes placed transversely; antennæ five-jointed, the second joint shorter than the third.

Delamarck, in his *Systême des Animaux sans Vertèbres*, first instituted the genus *Scutellera*, which was afterwards named *Tetyra* by Fabricius. This latter name I have applied to a group of insects, comprehending Tetyra nigrolineata and its congeners, which were included by the above-mentioned authors, and by Latreille, in one genus.

All the *Scutelleræ* which I have seen were distinguished by the extreme brilliancy of their colours, and for the most part were natives of warm climates.

In the genus which I wish to name *Tetyra*, the scutellum does not completely shield the abdomen, and the second joint of the antennæ is longer than the third.

TAB. XIV.

SCUTELLERA SEX-MACULATA.

S. coccinea argenteo nitens; pedibus, antennis, thoracis disco, maculis scutellaribus sex, pectore, epigastrio, marginibusque abdominis nigris.
Habitat in Nova Caledonia.
Mus. Dom. Macleay.

SIX-SPOTTED SHIELDBUG.

Red shining with silver; feet, antennæ, middle of the thorax, six spots on the scutellum, breast, epigastrium, and margin of the abdomen, black.

Inhabits New Caledonia.

Drawn Engraved & Published by R. P. Nodder March 1814

AGARISTA.

Character Genericus.

Antennæ extrorsum crassiores, ad apicem acuminatæ, abruptè uncinatæ.

Palpi supra linguam contigui, articulo penultimo compresso, squamoso, anticè hirsuto; ultimo cylindrico nudo.

Obs. Genus incertæ sedis. Habitus prorsus noctuarum sponsæ, nuptæ, &c. nec alarum pterigostiis ullo modo distinctis. Caput trunco multo angustius. Antennæ ad basin inter se dissitæ. Abdomen ano barbato. Tibiæ posticæ calcibus quatuor subobtusis per paria insertæ, interioribus longioribus.

AGARISTA.

Generic Character.

Antennæ thicker towards their extremities, their points acuminated and abruptly hooked.

Palpi meeting above the tongue, the second joint compressed, squamous, hairy before; the last joint cylindric, naked.

The situation of this curious genus (which agrees in habit, and as far as I can distinguish, in the nervures of the wings also, with *noctua sponsa* and its affinities) is very doubtful. The head is much narrower than the trunk, and the antennæ are inserted at a distance from each other. The extremity of the abdomen is tufted. The hinder shanks are provided with two pair of somewhat obtuse heels, as in the noctuæ above mentioned, but the internal ones are longest.

TAB. XV.

AGARISTA PICTA.

A. atra; ano fulvo; alis anticis striga baseos flava, maculisque fulvis; posticis fasciis duobus transversis, postica coccinea.

Habitat in Australasia.

Thorax flavus, maris disco atro. Alæ posticæ fascia antica maris flavicante, fæminæ cæsia. Pedes et pectus coccineo-hirti.

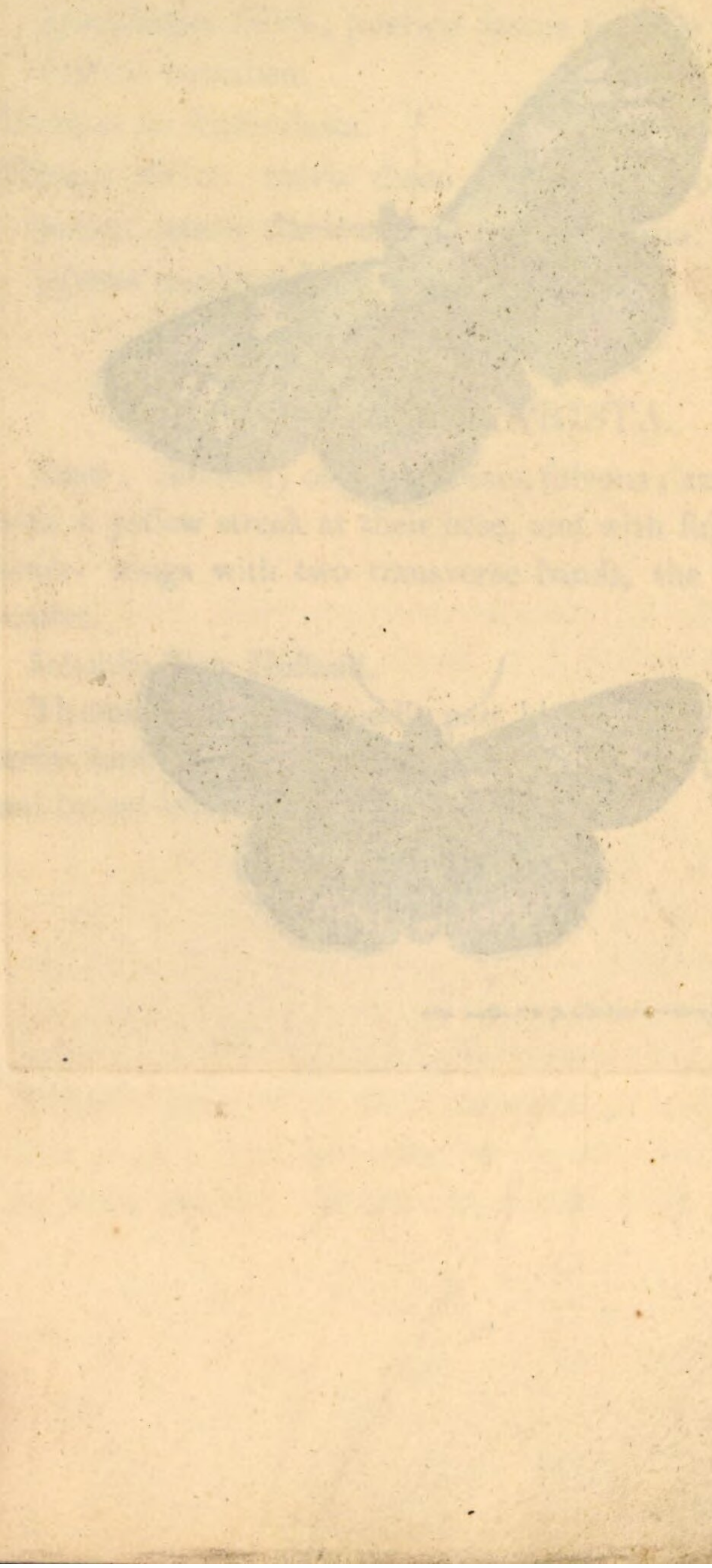
PAINTED AGARISTA.

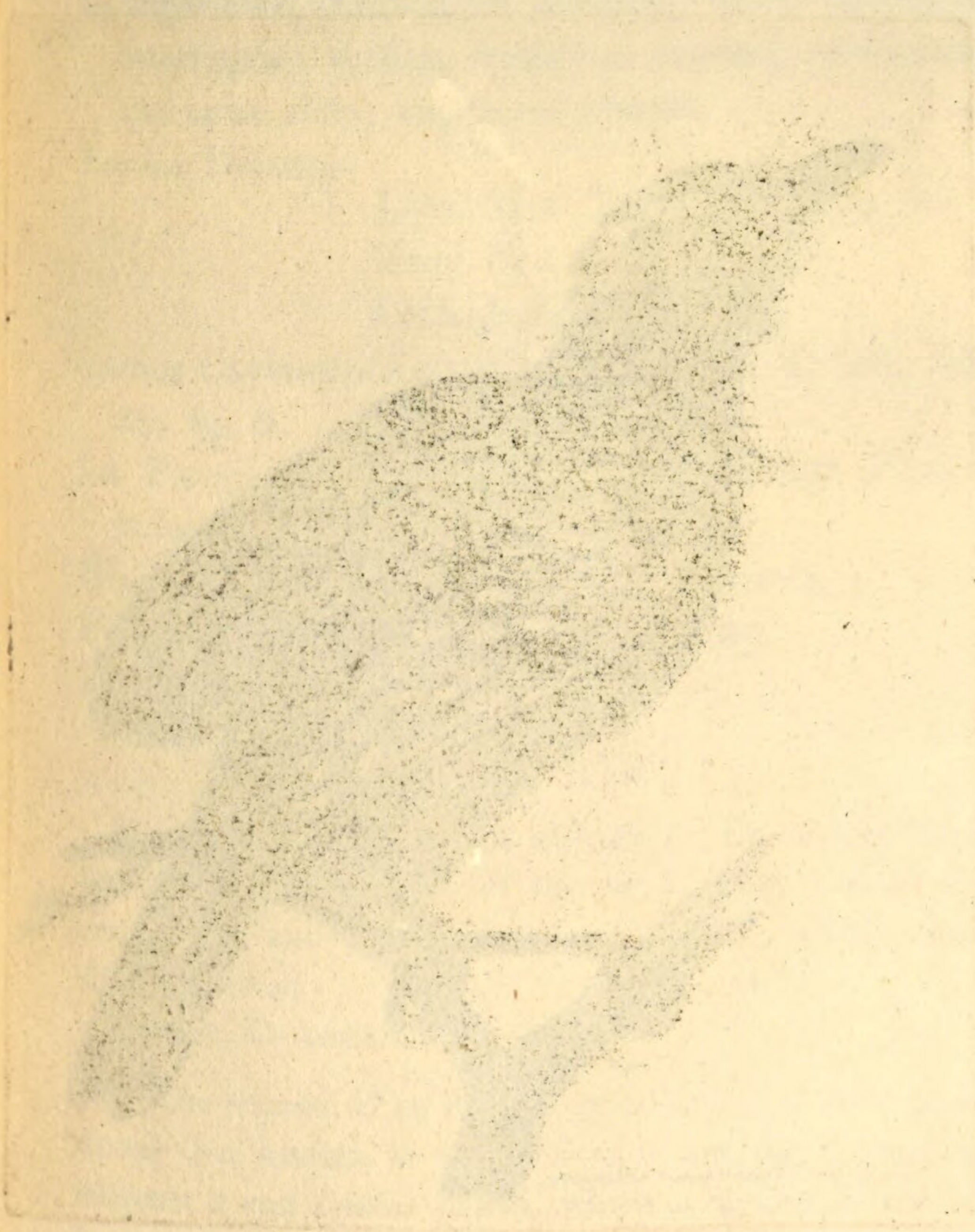
Black; extremity of the abdomen fulvous; anterior wings with a yellow streak at their base, and with fulvous spots; hinder wings with two transverse bands, the hinder one scarlet.

Inhabits New Holland.

Thorax yellow, the middle part black in the male. Anterior band of the male yellow, of the female bluish. Feet and breast covered with scarlet hair.

Drawn Engraved & Published by R P. Nodder 1814





Drawn Engraved & Published by J. P. Nodder, 1814

TAB. XVI.

LANIUS* DOLIATUS.

L. niger albo transversim fasciatus, fasciis dorsalibus interruptis; vertice, remigibus externè, rectricibusque apice albis; capite subcristato.

Lanius Doliatus.

Linn. Syst. Nat. ed. xii. 136, 16.
Gmel. Syst. Nat. 309, 16.
Lath. Ind. Orn. 80. 50.

Lanius Cayennensis striatus. *Briss.* av. 2, 187, tab. 29, fig. 3.

La Pie-griesche rayée de Cayenne. *Buff. Planch. enlum*, tab. 297, fig. 2.

Black and White Butcher-Bird. *Edwards*, pl. 226.

Pied Shrike. *Lath. Syn.* i. 190, sp. 44.

Habitat in Cayenne.

PIED SHRIKE.

Black transversely banded with white, the dorsal bands interrupted; upper part of the head, outer web of the wing-quills, and points of the tail-feathers white; head slightly crested.

Inhabits Cayenne.

At the request of an ornithological friend, I have introduced this species, in order to point out the distinctions between it and *Lanius nævius*, which is figured in the following plate.

* Generic character at page 19.

TAB. XVII.

LANIUS NÆVIUS.

L. niger; dorso, ventreque cinerascentibus, illo anticè albo-maculato; remigibus externè, rectricibusque apice albis.

Spotted Shrike. *Lath. Syn.* i. 190, 45.
Lanius Nævius. *Gmel. Syst.* i. 308.
Lath. Ind. Orn. 81, 51.

Mus. Brit.
Habitat ———?

SPOTTED SHRIKE.

Black; back and belly ash-coloured, the former anteriorly spotted with white; quills of the wings externally, and the tips of those of the tail, white.

Our figure of this pretty bird is taken from the original specimen described by Dr. Latham, and which is preserved in the British Museum.

It has the appearance of being a young bird; but Dr. Latham, who has seen another specimen, seems to have been fully justified in considering it as distinct from *Lanius doliatus*, until he should be convinced to the contrary by the examination of intermediate gradations in plumage.

The feathers composing the wing-coverts are regularly tipped with white. The under parts of the body are ash-coloured, of which colour the back partakes in a considerable degree.

Vann Engraved & Published by R.P. Nodder 1814.

Müller, who has given an admirable description of this shell, informs us that it is a native of Italy. The band occupies the middle of the body volution, but is placed near the suture of the other whirls.

UPPER FIGURES.

BULIMULUS TRIFASCIATUS.

B. albus; anfractibus septem bifasciatis, basilari trifasciato; fasciis rubro-fuscis.

THREE-BANDED BULIMULUS.

White, with seven two-banded whirls, the first volution with three bands; the bands reddish-brown.

This shell at first sight bears a near resemblance to the preceding species; but a very slight examination must convince the experienced conchologist that they are very distinct: the outer lip is much thinner, the basal whirl longer in proportion, and all the volutions are less convex. Added to these characters, the number of bands (which are subject to variety in breadth, especially the lateral ones) is very constant, and the colour invariably the same, excepting in worn specimens.

Conchology, when rendered subservient to geognostic investigations, assumes the rank of an useful science, and then becomes a subject of the highest importance. *Bulimulus trifasciatus*, a very common West Indian shell, occurs imbedded in the same limestone which incloses the fossil human skeleton, lately sent to the British Museum, from the *grande terre* of Guadaloupe, by Sir A. Cochrane, proving that rock to be of modern date, and contemporaneous with the existing creation of animals*.

* *A highly interesting paper on this subject has lately been read before the Royal Society by C. König, Esq., and will be published in the next volume of their Transactions.*

NYMPHUM.

PHALANGIUM, *Linn., Gmel.*
NYMPHON, *Fabr., Latr.*
PYCNOGONUM, *Müll., Otho-Fabr.*
NYMPHUM, *Delamarck.*

CHARACTER GENERICUS.

Corpus 4-articulatum, articulis omnibus pedigeris, antico in processum capitiformem posticè coarctatum producto, tuberculum oculis utrinque duobus gerentem.

Rostrum cylindricum, tubulosum, corpore brevius, segmento antico infernè insertum.

Mandibulæ rostro longiores articulis duobus æqualibus, secundo didactylo digitis curvatis per totam longitudinem conniventibus, ad apicem abruptiùs aduncis.

Palpi rostro longiores 6-articulati sub mandibulis inserti, articulo secundo elongato, sexto minimo.

Pedes octo; *coxæ* articulis tribus, medio longiore; *femora* 1-articulata; *tibiæ* biarticulatæ, articulo altero sublongiore; *tarsi* articulis duobus, primo subbreviore; *ungues* simplices.

Organa ovigera 10-articulata pone rostrum sub pedibus anticis ferè inserta.

NYMPHUM.

Generic Character.

Body composed of four feet-bearing segments, the first produced into a head-like process contracted behind, on which a tubercle having two eyes on each side, is placed.

Rostrum cylindric, tubular, shorter than the body, inserted into the under part of the first segment.

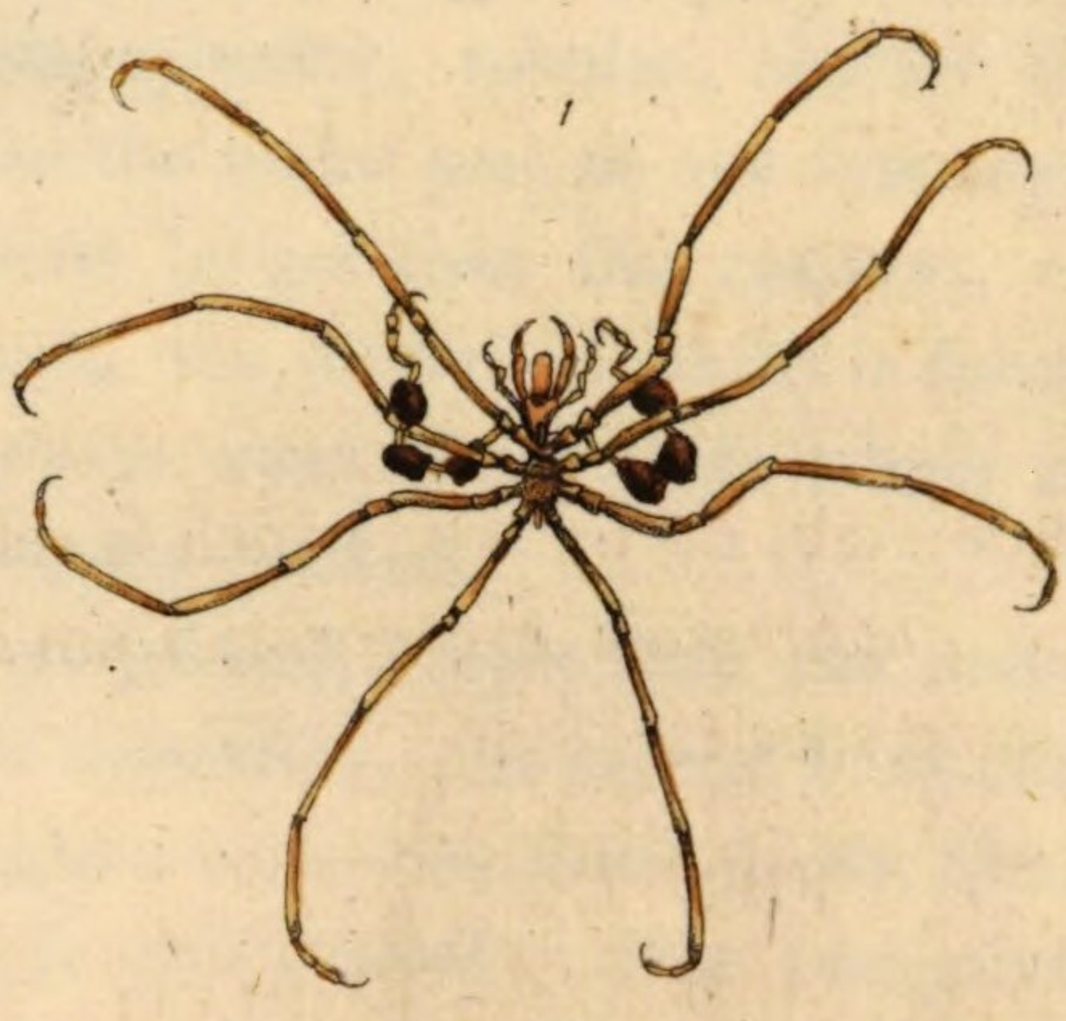
Mandibles longer than the rostrum, composed of two equal joints, the second of which is furnished with curved fingers which meet along their whole inner edge, their points abruptly hooked.

Palpi six-jointed, longer than the rostrum, inserted beneath the mandibles, the second joint elongate.

Feet eight; *coxæ* with three joints, the middle one longest; *thighs* one-jointed; *tibiæ* two-jointed, second joint rather longer; *tarsi* with two joints, the first rather longer; *nails* simple.

The parts on which the female carries her eggs are composed of ten joints.

1



2

Drawn Engraved & Published by R.P. Nodder 1814

TAB. XIX.

FIG. I.

NYMPHUM GRACILE.

N. cinereum; femoribus cylindricis.
In mari Britannico vulgatissimum.

SLENDER NYMPHUM.

Cinereous; thighs cylindric.

Inhabits the British sea every where, but as it never attains to the size of Strom's *Phalangium Marinum (History of Sondmor*, 208, tab. 2, fig. 16, which is referred to by Linnæus* as his *Phalangium grossipes)*, I am doubtful whether it be the same species.

FIG. II.

NYMPHUM FEMORATUM.

N. rufescens; femoribus dilatatis, compressis.
Habitat in Angliæ occidentali mari.

THICK-THIGHED NYMPHUM.

Reddish; thighs dilated and compressed.

I discovered this species on the shores of the Plymouth Sound, but am indebted to the researches of Mr. J. Cranch of Kingsbridge, for the fine specimen from which our figure is taken. Both this and the preceding species are represented of nearly twice the natural size.

* *Both Linnæus and Fabricius, on the authority of Dr. König, assert that it penetrates muscle-shells, and sucks out the contents, which seems, from the structure of the animal's mouth, to be impossible. Sir Joseph Banks informed me, that those round holes so common in bivalve shells, are formed by buccinum undatum (the common whelk): this is also noticed by Cuvier, in the eleventh volume of the Annales du Muséum.*

TAB. XIX.

FIG. 1.

NYMPHÆA GRACILE.

N. caule teres; foliis cordatis.

In rivo Brisbane, Australiæ.

FIG. 2.

NYMPHÆA TRIOLATUM.

N. caule teres; foliis cordatis, trilobis.

In rivo Brisbane, Australiæ.

ASCALAPHUS.

ASCALAPHUS, *Fabr.*, *Oliv.*, *Lam.*, *Latr.*
MYRMELEON, *Linn.*
LIBELLOIDES, *Schæfferi.*

CHARACTER GENERICUS.

Antennæ corpore longiores, capitulo obtrigono, compresso abruptè terminatæ.
Palpi sex, breves; *labiales* paulo longiores.
Oculi e duobus segmentis inæqualibus connexis conformati.
Abdomen thoracis longitudine.
Corpus hirtum.
Tarsi 5-articulati.

ASCALAPHUS.

GENERIC CHARACTER.

Antennæ longer than the body, abruptly terminated by a compressed, lengthened, triangular club.
Palpi six, short; *labial ones* rather longest.
Eyes composed of two unequal segments conjoined.
Abdomen as long as the thorax.
Body hairy.
Tarsi five-jointed.

TAB. XX.

ASCALAPHUS FLAVIPES.

A. corpore flavo, fuscoque vario; antennis nigricantibus, basi et ante clavam flavicantibus; pedibus flavis, tarsis obscurioribus.

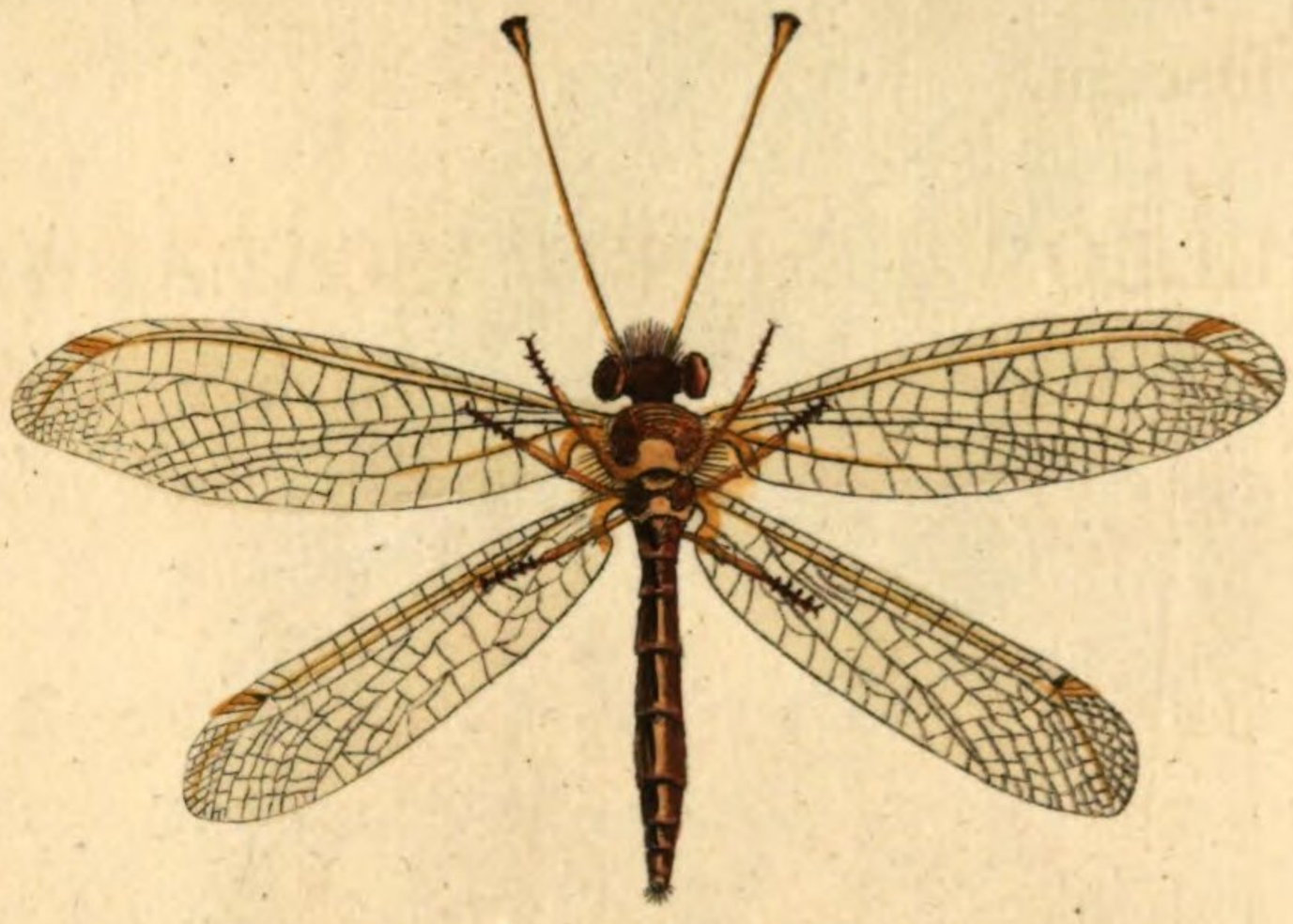
Habitat in Australasia vulgatissimus.

Alæ immaculatæ nigro-reticulatæ, pterigostia duo antica, basis stigmataque flavis: stigma posticarum basi fuscum.

YELLOW-LEGGED ASCALAPHUS.

Body yellow and brown; antennæ blackish, with the base and the apex before the club yellowish; feet yellow, tarsi darker.

This insect is a native New Holland, where it is found in considerable abundance. The wings immaculate, reticulated with black, their base, two anterior nervures, and stigmata yellow: stigmata of the hinder wings dark brown at their base.



Drawn Engraved & Published by R.P. Nodder 1814

Drawn Engraved & Published by R P Nodder Tavistock Street. 1814

LANIUS.

Generic character at page 19.

TAB. XXI.

LANIUS OBSCURUS.

L. fuscescens; remigibus, rectricibusque ferrugineo-marginatis saturatioribus; capite nigricante; superciliis, gula, pectore, ventreque albis; rostro, pedibusque nigricantibus.

Dusky Shrike. *Lath. Syn.* 1, 191, 46.
Lanius obscurus. *Gmel. Syst.* 308, 45.
Lath. Ind. Orn. 1, 81, 52.
Habitat ——?
Mus. Brit.

DUSKY SHRIKE.

Brownish; quills of tail and wings darker, margined with rust colour; head blackish; eyebrows, throat, breast, and belly white; beak and feet blackish.

Place unknown.

Figured from the specimen in the British Museum, which was described by Dr. Latham many years ago; no other specimen having occurred, and the bird being unknown to ornithologists, we cannot refrain from giving it a place in this work.

STROMBUS.

STROMBUS, Lin., Gmel., Delamarck.

CHARACTER GENERICUS.

Testa ventricosa: basis canali brevi truncato vel emarginato: labium exterius rectum, (in adultioribus simpliciter alatum, ala ad basin inferne emarginata).

ANIMAL marinum, carnivorum, trachelipodum; corpore spirali; pede compresso ad cervicis basin inferiorem.

STROMBUS.

GENERIC CHARACTER.

Shell ventricose; base with a short canal, which is either emarginate or truncate; external lip strait (in old shells dilated into a simple wing, notched at the base beneath).

ANIMAL marine, carnivorous; body spiral, with a compressed foot at the inferior base of the neck.

TAB. XXII.

STROMBUS SLOANII.

S. anfractu basilari lævis, basi longitudinaliter undulato-sulcato, apice processibus quadratis, compressis, elevatis; anfractibus superis nodosis, longitudinaliter lineatis, lineis elevatis.

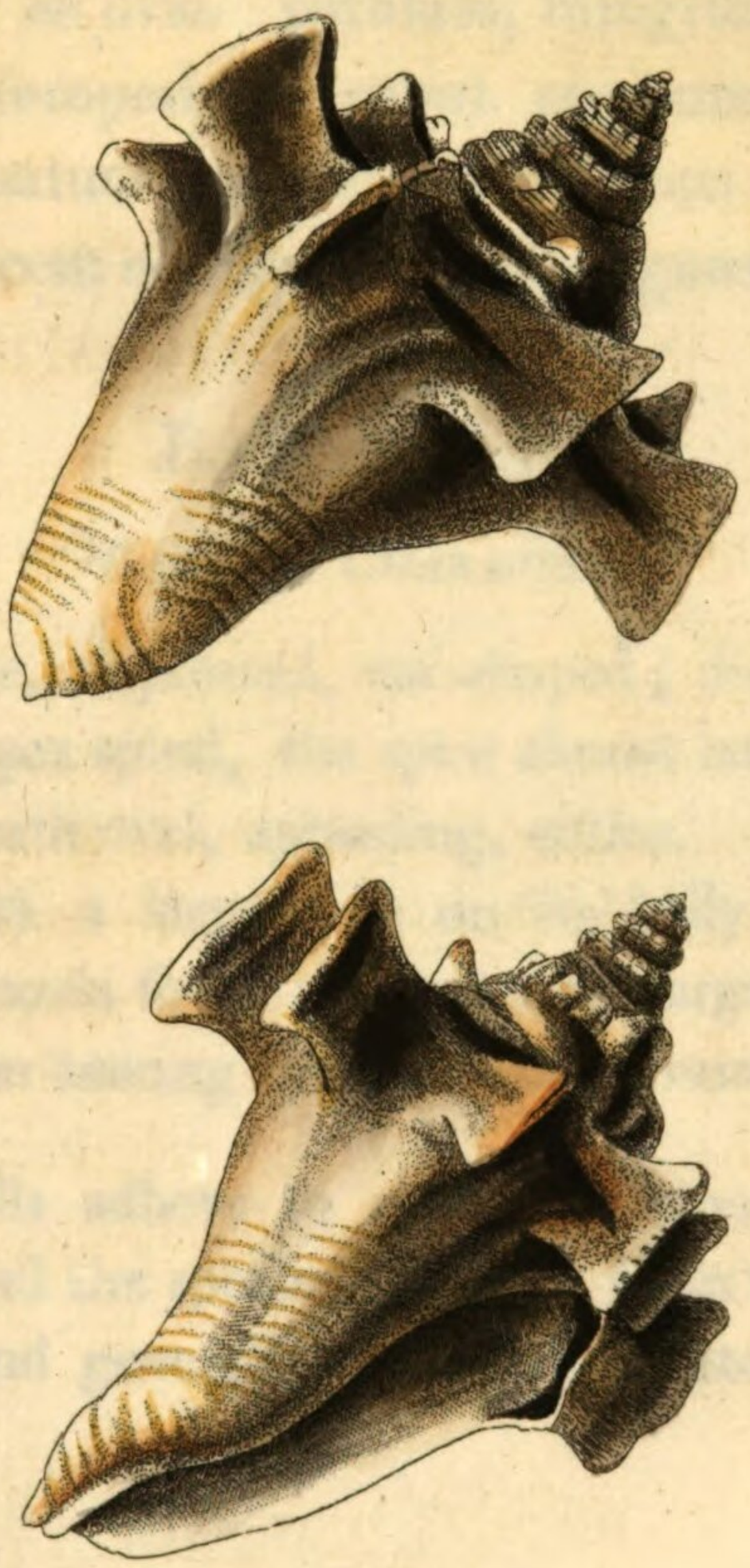
Habitat ———?

Mus. Brit.

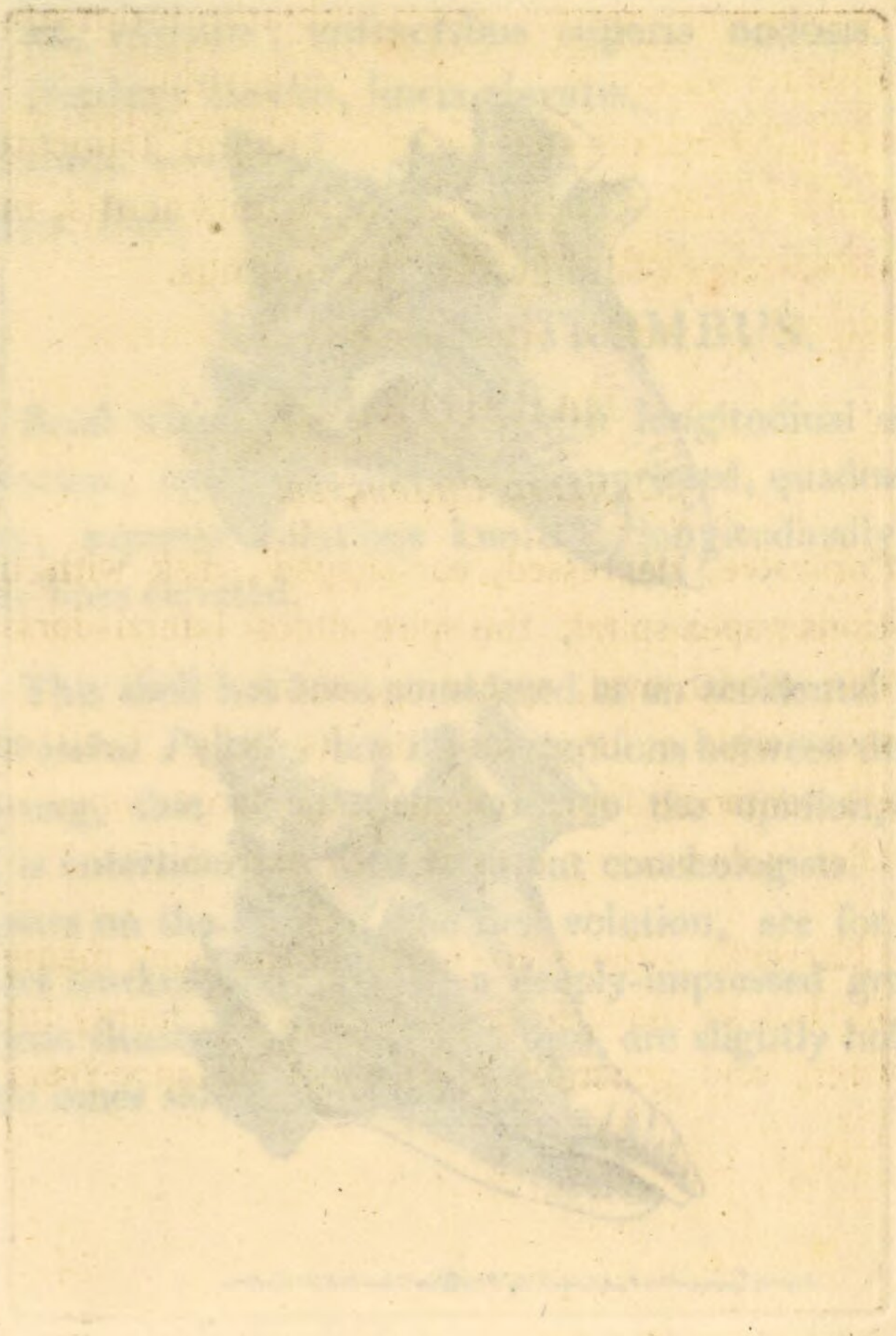
SLOANE'S STROMBUS.

Basal whirl smooth; base with longitudinal undulating grooves; apex with elevated, compressed, quadrate processes; superior volutions knotted, longitudinally lineated, the lines elevated.

This shell has been considered as an accidental variety of *Strombus Pugilis;* but the distinctions between them are so strong, that I cannot accede to the opinion, although it is entertained by some eminent conchologists. The processes on the apex of the first volution, are for the most part marked beneath with a deeply-impressed groove, and those situated nearest to the base, are slightly hollowed on the inner side of the shell.



Drawn Engraved & Published by R.P. Nodder Tavistock St London



HALIOTIS.

Character Genericus.

Testa univalvis, depressa, auriformis; discus multiperforatus; apex spiralis, spira sublaterali-dorsali aut subdorsali; os ovale, patulum, integrum.

Animal gasteropodum; caput conicum truncatum; tentacula quatuor inæqualia, majoribus acutis, minoribus ad apicem oculigeris; pes magnus.

EARSHELL.

Generic Character.

Shell univalve, depressed, ear-shaped; disk with many perforations; apex spiral, the spire almost lateral-dorsal, or subdorsal; mouth oval, spreading, entire.

Animal with a large foot on its belly; head conic, truncate; tentacula four, unequal, the larger ones acute, the smaller ones bearing eyes at their extremities.

The Earshells adhere to rocks in the same manner as Limpets; but all the species (as far as I can learn) inhabit deep water, and generally at a short distance from the shore.

TAB. XXIII.

HALIOTIS RUBER.

H. ruber, transversim undulatus; longitudinaliter lineatus, lineis crenulatis; spira dorsali.

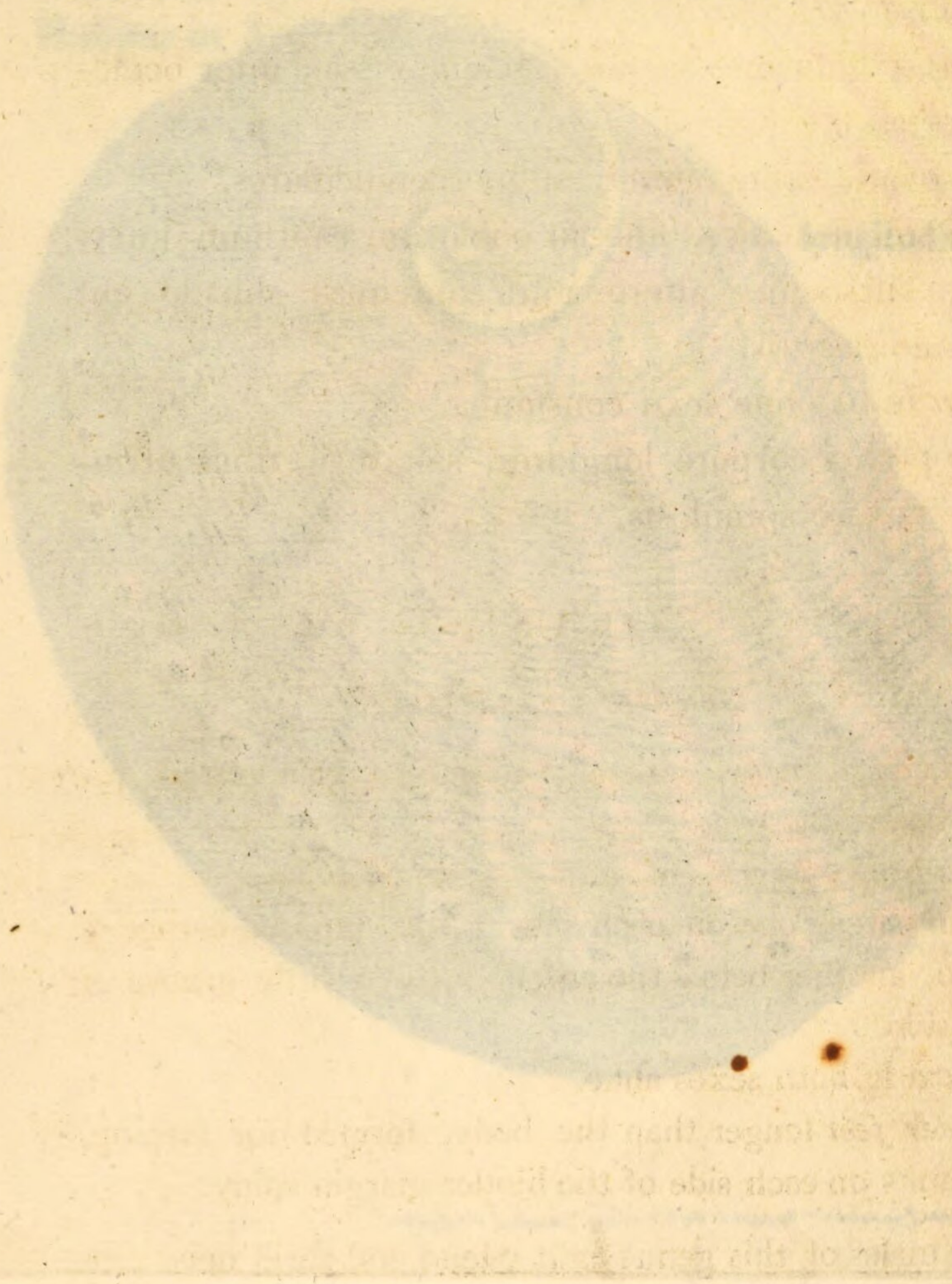
Habitat in Australasia.

RED EARSHELL.

Red, transversely waved, with elevated, longitudinal, wrinkled lines.

Inhabits New Holland.

Drawn Engraved & Published by R P Nodder. Tavistock St. London.



GRYLLUS.

Character Genericus.

Gryllus, Fabricii.
Acrydium, Geoff., De Geer, Oliv., Lam., Latr.
Gryllus *(Locusta)*, Linnæus.
Antennæ filiformes sæpius subcompressæ, inter oculos insertæ.
Oculi ovati, prominentes, subperpendiculares.
Ocelli tres frontales, uno ad oculorum canthum internum utrinque, altero infra antennas sulculo aut fossulo insertis.
Elytra in utroque sexu consimilia.
Pedes postici corpore longiores, saltatorii, tibiis utrinque postice spinulosis.

LOCUST.

Generic Character.

Antennæ filiform, generally somewhat compressed, inserted before the eyes.

Eyes ovate, prominent, almost perpendicular.

Ocelli three, one on each side at the internal corner of the eye, another below the antennæ, in a little groove or impression.

Elytra in both sexes alike.

Hinder feet longer than the body, formed for leaping, the shanks on each side of the hinder margin spiny.

The males of this genus emit a loud and shrill noise (for

the purpose of attracting the females), by rubbing their hinder shanks against their wings.

The depredations committed on the vegetable world, by some species of locusts, is incalculable. They migrate in prodigious numbers, carrying desolation before them; and although they deprive mankind of a very considerable portion of their vegetable food, yet in return, they afford nutriment of a wholesome and even palatable kind, they being eaten in the fresh as well as in the dried and salted states.

TAB. XXIV.

GRYLLUS AUSTRALASIÆ.

G. rufescens; fronte producto; thorace arcuato-cristato, postice producto.

Habitat in Australasia vulgatissimus.

AUSTRALASIA LOCUST.

Reddish; front produced; thorax with an arched crest, produced behind.

The annexed plate represents the male and female of this curious insect, which is extremely common in New Holland. The lower figure exhibits the male in a sitting position.

Drawn Engraved & Published by R.P. Bedder, Tavistock St. Covent Garden.

TAB. XXV.

GRYLLUS PICTUS.

G. corpore viridescente, fusco, nigroque picto; alis flavis fascia nigricante, apice hyalinis; tibiis posticis carneis: thorace carinato, postice producto.

Habitat in Australasia.

PAINTED LOCUST.

Body greenish painted with brown and black; wings yellow with a black band, their points hyaline; hinder shanks flesh-coloured; thorax carinated, produced behind.

This beautiful Locust is a native of New Holland, where it appears to be not an uncommon insect. The hinder margin of the elytra towards the base, is generally green, bordered with light brown. The extreme joints of the wings are sometimes faintly mottled with brown, at other times immaculate.

Drawn Engraved & Published. By R.P. Nodder. Davistock Street. 1814.

ARVICOLA.

ARVICOLA, *Duméril.*
MUS, *Ray, Briss., Linn., Gmel., Cuv.*

CHARACTER GENERICUS.

Dentes incisores $\frac{2}{2}$ simplices, elongati, recurvati; *molares* $\frac{6}{6}$ coronis lateribusque sulcatis.
Pedes simplices; *antici* tetradactyli; *postici* pentadactyli.
Cauda teres, pilosa, corpore brevior.
Aures breves.

CAMPAGNOL.

GENERIC CHARACTER.

Cutting teeth in each jaw two, simple, elongate, recurved.

Grinders in either jaw six, having their crowns and sides grooved.

Feet simple; anterior ones with four, hinder with five toes.

Tail rounded, hairy, shorter than the body.

Ears short.

Under the name *Campagniol* have been confounded several species of what are commonly termed *short-tailed mice.*

They compose their nests of grass or moss, and place them beneath a large stone or in the hollow of a tree, leaving two entrances, to enable them to escape their ene-

mies with facility: their food consists of fruits and of grass, and they are said to lay in a store of provisions for the winter. The prevailing colour (in most of the species) of the back, is a mixture of fulvous and black, the hairs being bluish-black below their points; the hair of the belly generally bluish-black, paler than that of the back, and tufted with silvery white: tail dark coloured above, and pale beneath. An indigenous species *(A. agrestis)* has lately increased so much in the Royal Forest in Hampshire, as to threaten destruction to the young oaks, which they gnaw through a little beneath the surface of the ground.

TAB. XXVI.

ARVICOLA XANTHOGNATHA.

A. fulvo nigroque varia, ventre argenteo-cinereo; malis fulvis; cauda alba supra nigra; pedibus fuscescentibus subtus albidis.

Habitat ad Hudson's Bay.

FULVOUS-CHEEKED CAMPAGNOL.

Back variegated with fulvous and black; belly silvery ash-colour; cheeks fulvous; tail white, black above; feet brown, whitish beneath.

This species was received from Hudson's Bay by Mr. Bullock, who kindly lent it to me for description. It is represented rather less than half of the natural size.

Drawn Engraved & Published by R.P. Nodder Tavistock St. [illegible]

XIPHIAS.

XIPHIAS, auctorum.

CHARACTER GENERICUS.

Caput mandibula superiore longissima, ossea terminatum.

Corpus longum, alepidotum.

SWORDFISH.

GENERIC CHARACTER.

Head terminated by a very long bony upper-jaw.

Body long, without scales.

The *Swordfish* was well known to the ancients by Aristotle's name of Ξιφιας; it is noticed also under the title of *Gladius* by Pliny, who records the circumstance of its penetrating ships, regarded by many writers as fabulous, but now established as a fact by the most unquestionable authority.

The Cape of Pelorus (Capo Peloro or Capo di Faro), situated in the Straits of Messina, has long been celebrated for the resort of some species of *Swordfish* (probably *X. Gladius*), which is very common in the Mediterranean sea, and is taken by means of a spear in considerable abundance, being highly esteemed as an article of luxury by the Sicilians, who purchase it at a high price.

"The ancient method of taking them is particularly described by Strabo, lib. i. p. 6, and agrees exactly with that practised by the moderns."—*Pennant.*

TAB. XXVII.

XIPHIAS RONDELETII.

X. corpore subscabro; linea laterali nulla; pinnis dorsali et anali interruptis.

Xiphias Rondeletii.

Leach Mem. Wern. Soc. 2, 58, tab. 2, fig. 1.

Habitat in mari Britannico, piscibus minoribus victitans.

Rostrum compressum supra trisulcatum nigrum, infra subcarinatum albicans.

Oculi subargenteo-viridescentes, pupilla albicante-cæruleo-atra. (Membrana branchiostega 5-radiata?)

Pellis subscabra.

Dorsum nigricans.

Venter lateraque argenteo-alba.

Pinna pectoralis argentea margine antico supra nigricante.

Pinna dorsalis nigra interrupta, intervallo exarato.

Pinna analis cæruleo-nigra interrupta.

Linea lateralis nulla.

RONDELETIAN SWORDFISH.

Body rather rough, with no lateral line; dorsal and anal fins interrupted.

Rondeletius is the only author who appears to have noticed this species, which he informs us inhabits the Italian

seas. In his rude figure* the posterior anal fin is omitted; but his accurate description leaves no doubt as to the correctness of the reference.

The specimen I examined (through the kindness of P. Neill, Esq.) was taken in the Frith of Forth; on dissection it proved to be a female, and in its stomach the remains of small fish were discovered: the head was much lacerated; part of the branchiostegous membrane therefore may have been torn away, but this conjecture must be decided by future observations. The superior process of the tail was also incomplete, although there can be little doubt, from what remains, that the appearance was similar to that exhibited in the annexed figure by a dotted line. The length of the body, including the rostrum, was eight feet three inches. The rostrum compressed, black, with three longitudinal grooves above, whitish, with a slight carination beneath.

It is at once distinguished from *X. Gladius (common Swordfish)* by the dorsal fin, which in that species is connected: may it not be a sexual distinction of that species?

The flesh was very excellent, and well tasted.

* *De Piscibus marinis* 25.

PADOLLUS.

Padollus, *De Montfort.*

Character Genericus.

Testa univalvis, depressa, auriformis; discus perforatus; apex spiralis, spira dorsali; os ovale, patulum, irregulare.

PADOLLUS.

Generic Character.

Shell univalve depressed ear-shaped; disk perforated; apex spiral, the spine dorsal; mouth oval, spreading, irregular.

This genus is readily distinguished from *Haliotis (Ear-shell)* by the irregular form of the outer edge or lip; the disk has fewer perforations, and the spire is placed farther on the back.

The animal is unknown, but it is probably not very unlike that of the Earshell.

TAB. XXVIII.

PADOLLUS SCALARIS.

P. albidus rufo-variegatus; anfractibus longitudinaliter elevato-tricostatis; anfractu basilari ad apicem scalari, costa inferiore nodosa, media (5-) perforata, superiore longitudinaliter striata, insterstitiis crenulatis.

Habitat ———

Mus. Brit.

STAIRCASE PADOLLUS.

Whitish variegated with rufous; whirls with three longitudinal elevated ribs; basal volution staircase-like above, with the inferior rib knotted, middle rib perforated (with five holes), upper rib longitudinally striated, the spaces between the striæ wrinkled.

There is one specimen of this rare shell in the British Museum, which is the only species of the genus that I have had an opportunity of examining. Country unknown.

The number of perforations may probably not be constant; the character is therefore not introduced without caution.

Drawn Engraved & Published by R. P. Nodder. Tavistock St. Covent Garden.

BULIMUS.

BULIMUS, *Scopoli, Bruguière, Delamarck, De Montfort.*

BULLA, *Martini.*

CHARACTER GENERICUS.

Testa univalvis ovalis vel oblongo-ovalis: spira elevata: anfractus ultimus maximus: os integrum subovale: columella lævis, simplex: labium externum crassum, externe marginatum; internum ultra medium cavernoso-inflexum.

ANIMAL trachelipodum, corpore spirali, pede compresso ad cervicis basin inferiorem: capite tentaculis quatuor inæqualibus, superioribus longioribus, oculigeris, os breve: mandibulis duabus validis: operculum nullum.

BULIMUS.

GENERIC CHARACTER.

Shell univalve, oval or oblong-oval: spire elevated: basal whirl very large: mouth entire, somewhat oval: pillar smooth, simple: external lip thick, externally margined; internal lip beyond the middle inflected, with a hollow beneath.

ANIMAL with a compressed foot at the inferior base of the neck; body spiral; head with four tentacula, the upper ones longest bearing the eyes; mouth short, with two strong jaws; no operculum.

The shells of this genus, which are named by the French collectors, *fausse oreille de Midas*, inhabit the land, living amongst rocks and trees on various kinds of vegetable food.

TAB. XXIX.

BULIMUS HÆMASTOMUS.

B. fuscus; anfractibus sex oblique striatis; labiis roseis.

Bulla pseudo auris Midæ.

Mart. Conch. 9, tab. 1199, fig. 1022, 1022.

Bulimus hæmastomus.

Lam. Syst. des Anim. sans Vert. 91.

Bulimus oblongus.

Brug. Enc. Art. Vers, No. 34.

Bulimus roseus.

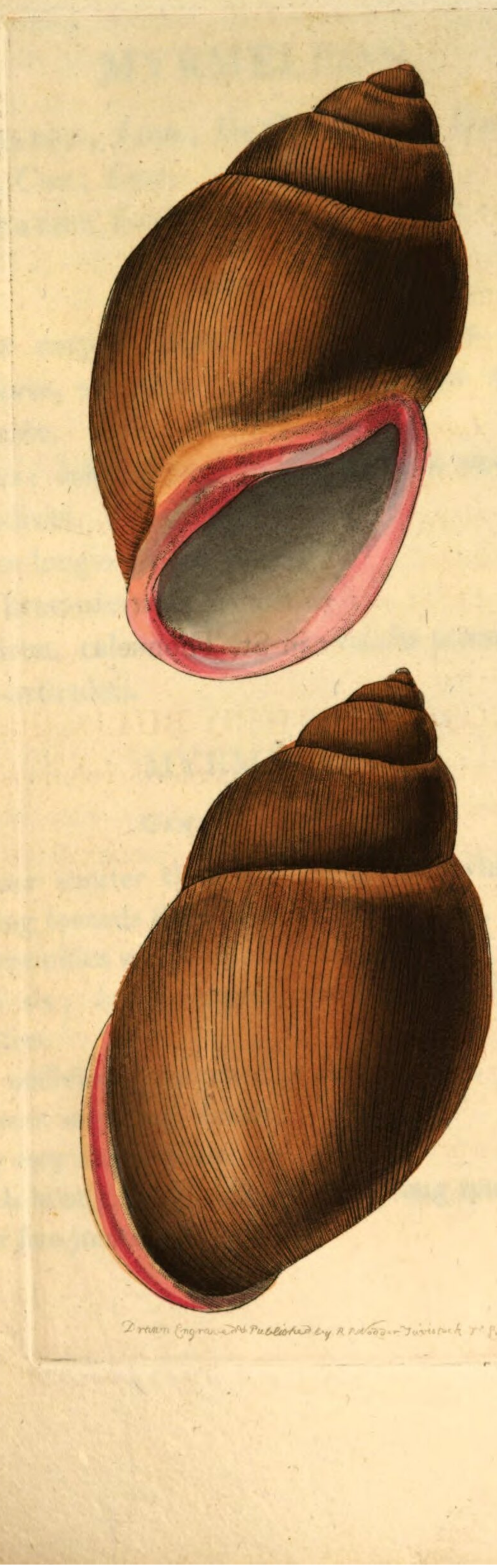
De Montford Conch. Syst. tom. 2, p. 259.

Habitat in Cayenne et in St. Thomæ Insula.

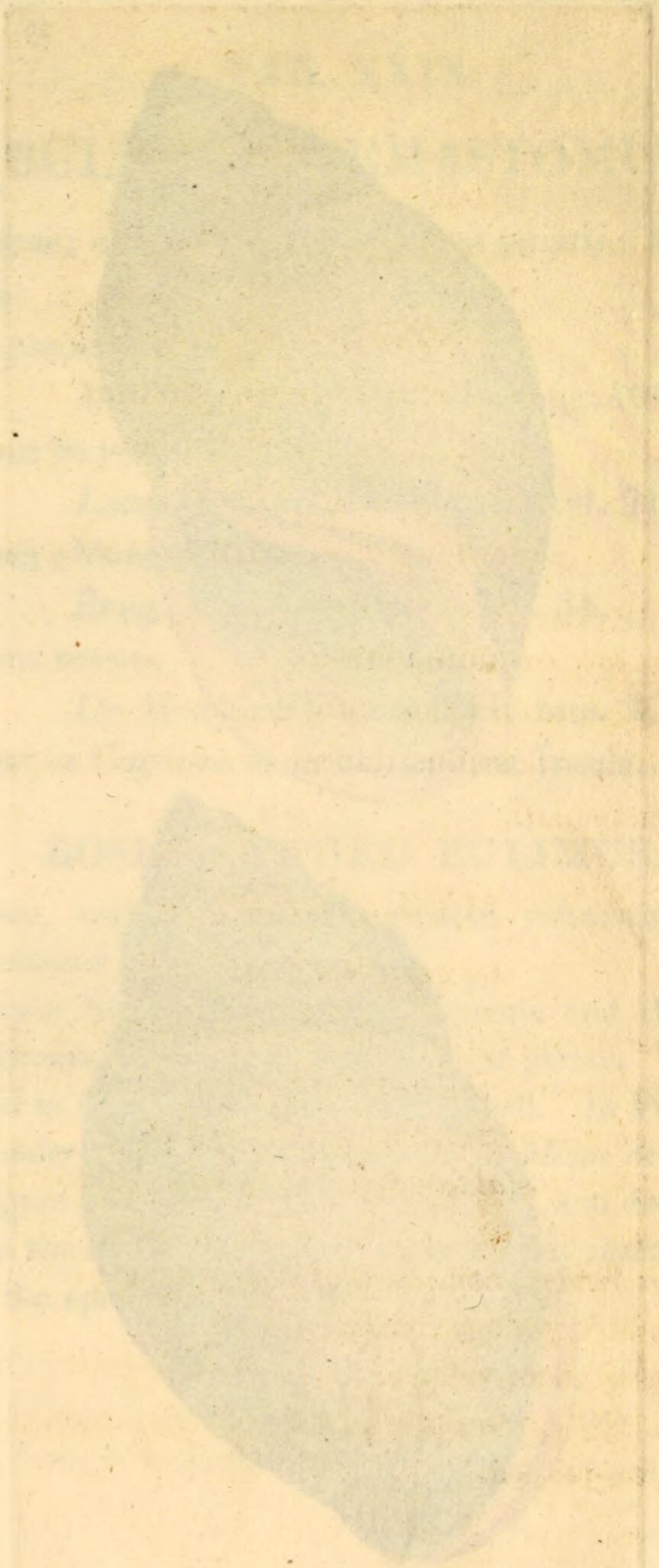
ROSE-MOUTHED BULIMUS.

Brown, with six obliquely striated volutions; mouth rose-coloured.

Bulimus Hæmastomus inhabits Cayenne and the Isle of St. Thomas, where it occurs in great plenty. The eggs are said to be furnished with a hard shell. In France it is sold under the title, *fausse oreille de Midas de Cayenne.* The figure given by Martini is very bad, and does not represent the striæ, which form an important character. Beneath the epidermis the shell is dirty white.



Drawn Engraved & Published by R. P. Wood, Tavistock St. Covent.



MYRMELEON.

MYRMELEON, *Linn.*, *De Geer*, *Fabr.*, *Gmel.*, *Oliv.*, *Lam.*, *Cuv.*, *Latr.*
FORMICALEO, *Geoffroy.*

CHARACTER GENERICUS.

Antennæ corpore breviores, subgradatim extrorsum crassiores, arcuatæ, acumine distincto ad apicem instructæ.
Palpi sex; *labiales* longiores, extrorsum subcrassiores.
Oculi indivisi.
Abdomen longissimum, lineare.
Corpus brevissime villosulum.
Tibiæ hirtæ, calcaribus duobus validis terminatæ.
Tarsi 5-articulati.

MYRMELEON.

GENERIC CHARACTER.

Antennæ shorter than the body, somewhat gradually thickening towards their extremities, arcuated, furnished at their extremities with a distinct little point.

Palpi six; *labial* longest, somewhat thicker at their extremities.

Eyes undivided, composed of one segment.
Abdomen very long, linear.
Body very short-villose.
Shanks bristly, terminated by two strong spurs.
Tarsi five-jointed.

The *Mymeleones* feed on other insects, which they are said to take whilst on the wing: they deposit their eggs in sandy places, and the larvæ when hatched, are described as forming an ingenious kind of trap for the purpose of taking their prey, which consists of small insects.

For a minute detail of the economy of these interesting insects, I must refer to the elaborate works of Rösel and Reaumur. We have no indigenous species.

TAB. XXX.

MYRMELEON ERYTHROCEPHALUM.

M. nigricans; capite, collo, coxis, femoribusque quatuor anterioribus rufescentibus; alis hyalinis, iridicentibus fusco-maculatis, margine postico fusescente.

Habitat in Australasia.

Mus. Dom. Macleay, Brown.

RED-HEADED MYRMELEON.

Blackish; head, neck, coxæ, and four anterior thighs reddish; wings hyaline, spotted with fuscous brown, hinder margin brownish.

This elegant species was discovered in New Holland by R. Brown, Esq.; it has since been once received by A. Macleay, Esq. from the same country, where it seems to be of rare occurrence.

The spots on the wings of the same individual are subject to some variation; I suspect however, that three spots on the hinder wings, will be found to be a tolerably constant character.

30

Drawn, Engraved & published by R. & W. Scott, London.

CUCULUS.

CUCULUS, *auctorum.*

CHARACTER GENERICUS.

Rostrum teretiusculum, gracile, subincurvatum.

Nares prominulæ.

Pedes simplices, digitis duobus anticis, duobus posticis, externis longioribus: *ungues* æquales.

CUCKOW.

GENERIC CHARACTER.

Beak rounded, slender, slightly incurved.

Nostrils prominent, margined.

Feet simple, with two toes before and two behind, the external toes longest: *nails* equal.

The feet are generally considered as scansorious, or formed for climbing *(pedes scansorii)*; but this not being the case, they must be regarded as simple feet, having two toes before and two behind. The tail is composed of ten feathers, of which those towards the middle are the longest, the lateral ones being remarkably short.

Cuckows feed on larvæ or caterpillars, and on perfect insects: they are remarkable for neglecting their young, the female always depositing her eggs singly in the nests of smaller birds. Soon after it is hatched it begins to throw the other young birds from the nest, which it accomplishes by gently elevating them one by one to the brink of the

nest, and jirking them over. The foster-parents continue to feed the cuckow for some time after it leaves the nest, notwithstanding which it never acquires their notes; whereas all those birds who possess the faculty of mimickry or of learning tunes, if hatched under another species of bird, invariably gain their peculiar song, although it is generally combined with their own natural notes.

TAB. XXXI.

CUCULUS AFER.

C. atro-virens; capite cristato; gula, pectore, ventreque lutescentibus illâ nigro-maculatâ.

Habitat ——— ?

AFRICAN CUCKOW.

Black-green; head crested; throat, breast, and belly dirty yellowish, the former mottled with sooty-black.

This new and beautiful bird was lent to me by Mr. Leadbeater, of Brewer-street, who received it from Africa.

It seems to be a slight variety of the *Coucou Edolio variété* of Levaillant, described in his *Oiseau d'Afrique*, vol. v. 44, 209.

Drawn Engraved & Published. by R.P. Nodder Tavistock St. London.

AURICULA.

AURICULA, *Seba, De Lamarck.*
BULIMUS, *Bruguière.*
AURICULUS, *De Montford.*
VOLUTA, *Linnæus, Gmelin.*

CHARACTER GENERICUS.

Testa univalvis, ovalis aut oblonga, spiralis: *spira* elevata, regularis, subobtusa, anfractu ultimo maximo: *os* integrum, elongatum, angustum: *columella* plicata: *labium* externum incrassatum.

ANIMAL *tentaculis* duobus brevibus, oculis ad basin interne; *operculo* nullo.

AURICULA.

GENERIC CHARACTER.

Shell univalve, oval or oblong, spiral: *spire* elevated, regular, somewhat obtuse, the *last whirl* very large: *mouth* entire, elongate, narrow: *pillar* plicate: *external lip* thickened.

ANIMAL with two short *tentacula*, with *eyes* at their internal base; *operculum* none.

The shells of this genus inhabit woods and marshes.

TAB. XXXII.

AURICULA MIDÆ.

A. fuscescente-lutea, anfractibus superis, et basilari superne granulatis; ore albido; columella biplicata, dente supero majore.

Voluta auris Midæ. *Linn. Syst. Nat.*

Auris Midæ. *Klein* 2, 37, Tab. vii. f. 122.
Mart. Conc. 2, Tab. xliii. f. 437, 438.

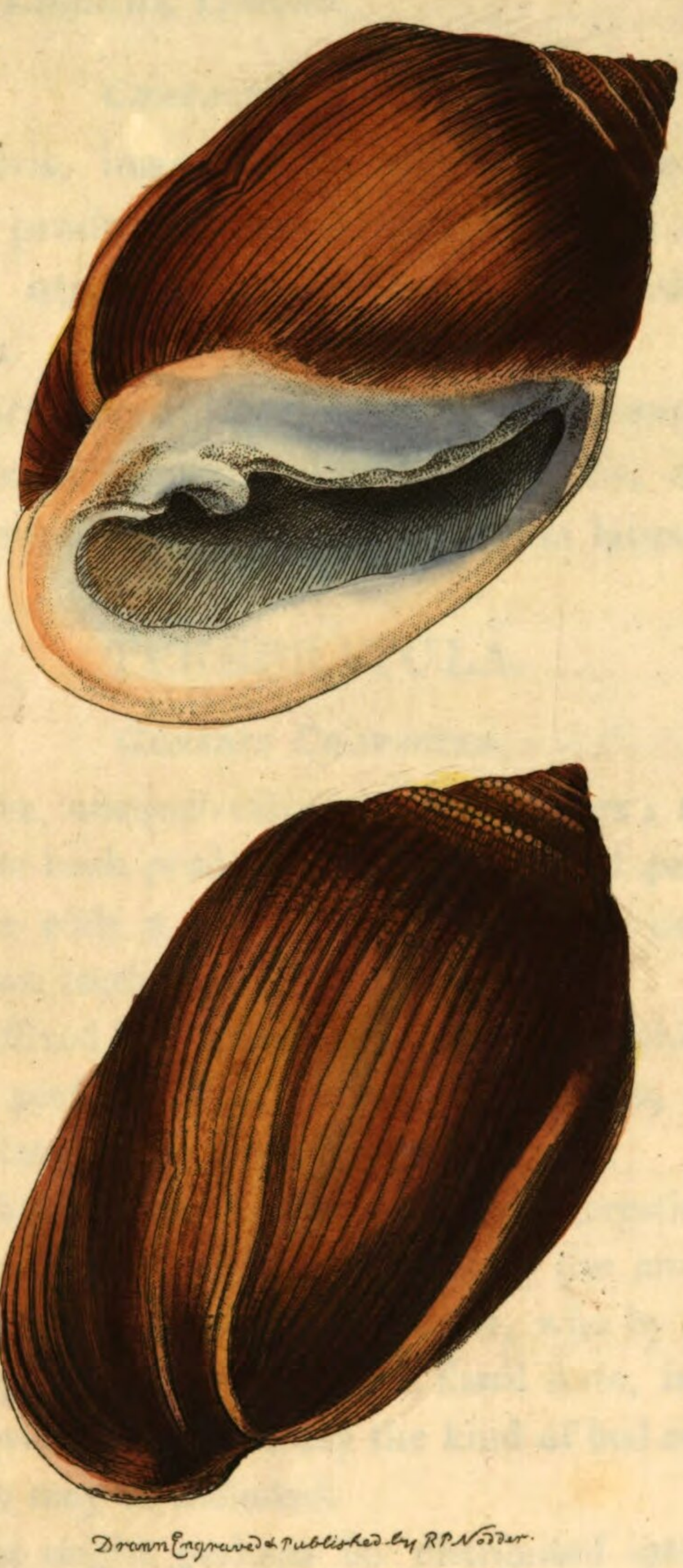
Auricula Midæ. *De Lam. Syst. des an. sans Vert.* 92, 49.

Habitat in India Orientali.

MIDAS'S AURICULA.

Yellowish brown, upper whirls and apex of the body volution granulated; mouth whitish; pillar with two folds, the upper one largest.

This rare shell inhabits the East Indies, and is said to reside in moist woods and marshes. In France it is named "*Oreille de Midas;*" it has been confounded with *Voluta auris Judæ* of Linnæus.



Drawn Engraved & Published by R.P. Nodder.

TEREBRATULA.

TEREBRATULA, *De Lamarck.*
ANOMIA, *Linnæus, Gmelin.*

CHARACTER GENERICUS.

Testa bivalvis, inæquivalvis; valvæ convexæ; majore umbone producta, rostriformi, perforata; minore processu utrinque interne osseo instructâ: cardo bidentata.

ANIMAL processu tubiformi, brevi per foramen exeunte affixum: brachiis duobus elongatis, retractilibus, per totam longitudinem ad unum latus ciliatis.

TEREBRATULA.

GENERIC CHARACTER.

Shell bivalve, unequal-valved; valves convex; the larger valve with the beak produced, rostriform, and perforated; smaller valve with a bony process on either side, and a hinge with two teeth.

ANIMAL affixed by a short tube-like process which passes through the perforation at the beak: arms two, elongate, retractile, ciliated along the whole of one side.

The Terebratulæ are not only highly interesting to the Zoologist, from the curious structure of the animal, but are of great importance to the geologist, who by means of the various species which occur in a fossil state, is enabled to ascertain with great accuracy the kind of bed or stratum in which they may be included.

This genus might perhaps be distributed into several

sections, from the undulations or the sculpture of the shell, some being quite plain, others ribbed, and others again being undulated with and without ribs.

We have one indigenous species (supposed to be *T. Cranium* of Müller), discovered in Zetland by that indefatigable naturalist the Rev. Dr. Fleming, which will be given in the eleventh volume of the Transactions of the Linnæan Society, by G. Montagu, Esq.

TAB. XXXIII.

TEREBRATULA SANGUINEA.

T. testa sanguinea, subtillissime et creberrime impresso-punctata, longitudinaliter costata, costis simplicibus; antice uniundulata.

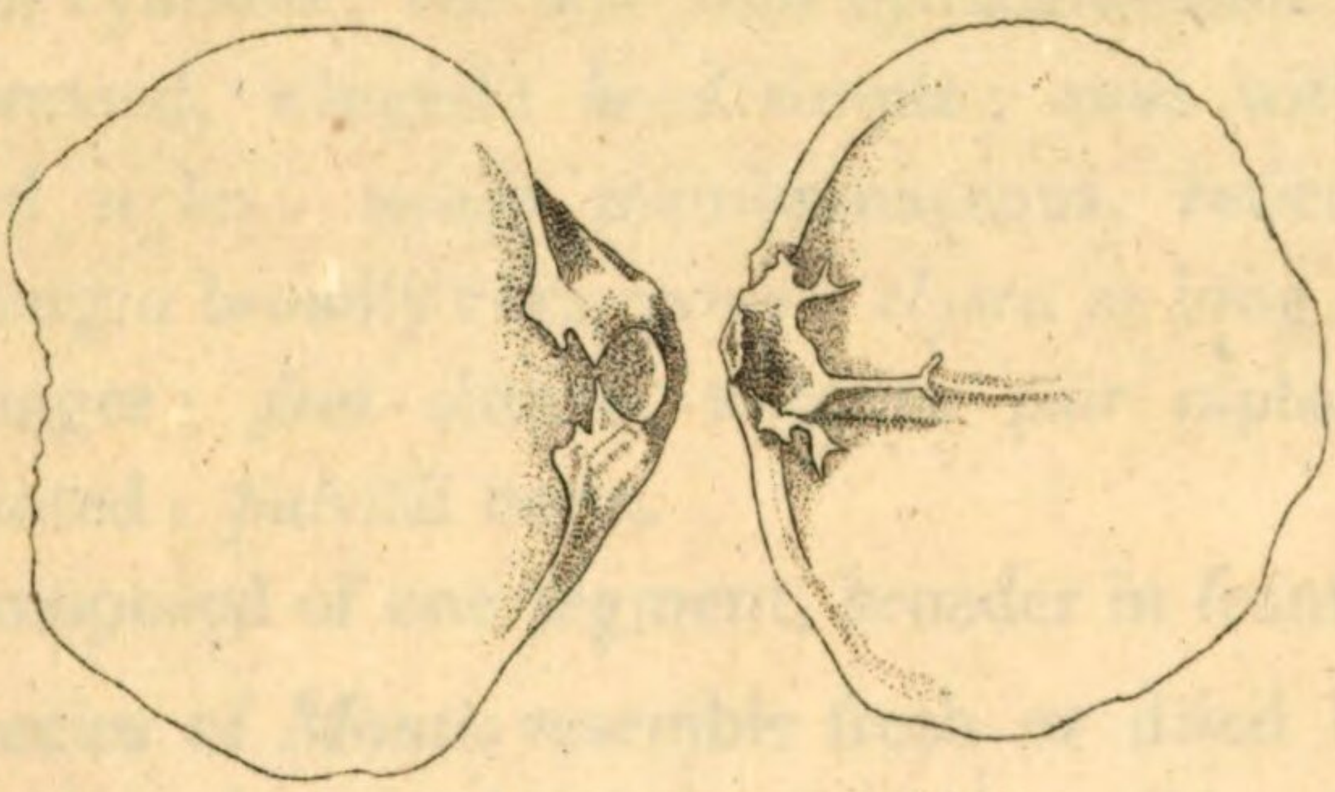
Habitat in Nova Zelandia.

BLOOD-RED TEREBRATULA.

Shell blood-red, very finely and very thickly covered by impressed dots, longitudinally ribbed, ribs simple; anterior margin with one undulation.

On either side of the hinge of the smaller valve is a bifid process, and another towards the centre of the same valve, as shewn in one of the lower figures.

It seems to be a very rare species, a few specimens only having been received from New Zealand.



Drawn Engraved & Published by R.R. Noder Tavistock St. London

MANTIS.

MANTIS, *auctorum.*

CHARACTER GENERICUS.

Antennæ setiformes inter oculos insertæ: *labrum* integrum: *palpi* cylindrici, articulo ultimo cylindrico-conico.

Corpus depressum, alatum: *caput* inerme: *anus* stylis duobus multi-articulatis, *alæ* membranaceæ, reticulatæ, margine costali late coriaceo: *elytra* corporis longitudine aut longiora: *pedes* simplices, anticis raptoriis: *tarsi* 5-articulati: *pulvilli* nulli.

Thorax segmento unico antice dilatatus.

MANTIS.

GENERIC CHARACTER.

Antennæ setaceous, inserted between the eyes: *labrum* entire: *palpi* cylindric, the last joint cylindric-conic.

Body depressed, winged: *head* simple: *anus* with two many-jointed styles: *wings* membranaceous, reticulated, the costal margin broadly coriaceous: *elytra* as long as the body, or longer: *feet* simple, anterior pair raptorious: *tarsi* five-jointed: *pulvilli* none.

Thorax composed of one segment, broader in front.

Many species of *Mantis* resemble fresh or dried leaves, whence they are frequently denominated *walking-leaves:* they occur in various parts of the world, but are never found in cold climates. In some parts of Africa they are said to be held sacred by the natives; but the truth of this assertion has not been clearly shown.

TAB. XXXIV.

MANTIS AUSTRALASIÆ.

M. alis, elytrisque acuminatis, illis antice viridibus postice fuscescentibus, subpellucidis; his fuscescentibus fusco-reticulatis, costa ad basin subrufescenti: thorace subcarinato, marginato, lateribus antice spinulosis.

Habitat in Australasia.

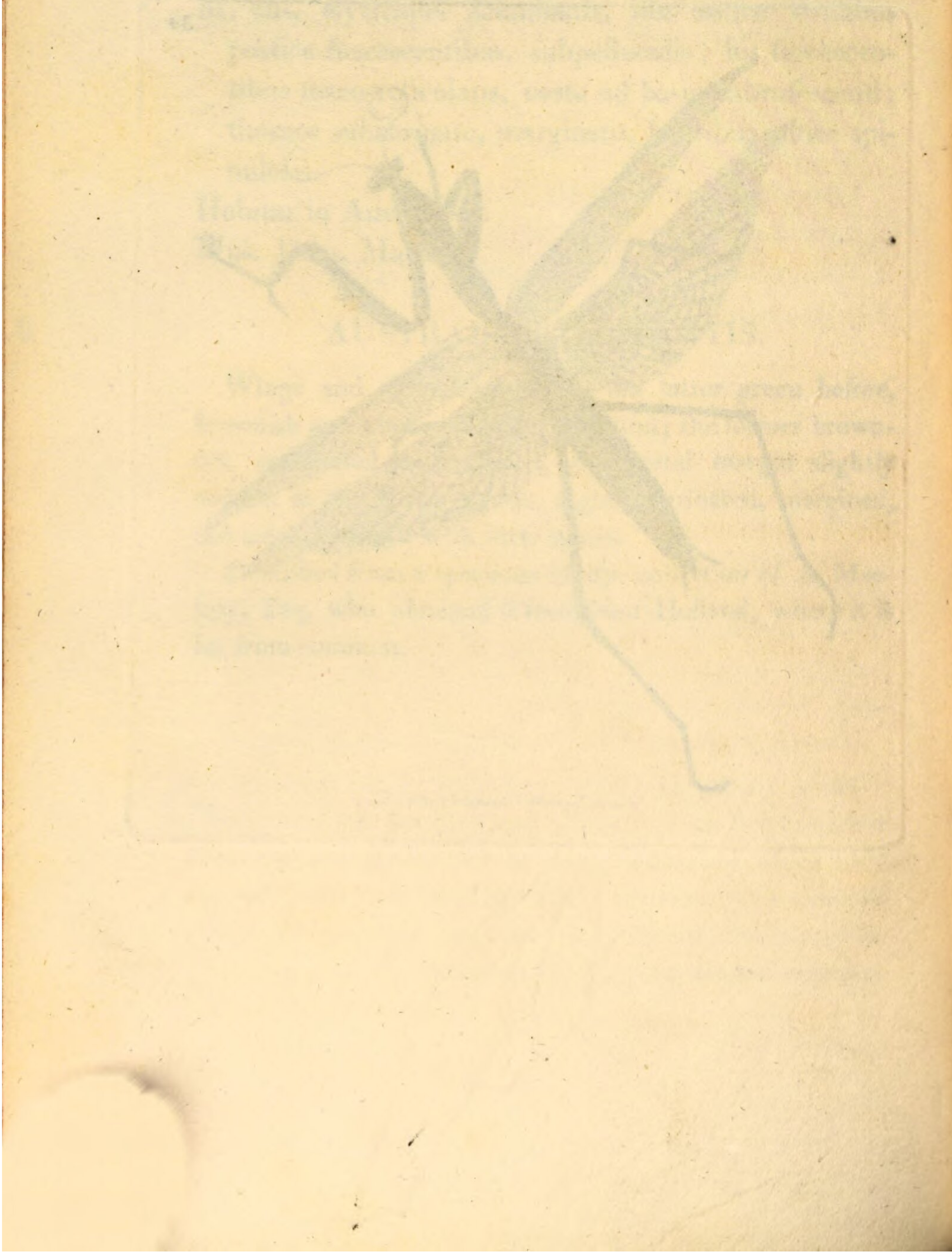
Mus. Dom. Macleay.

AUSTRALASIAN MANTIS.

Wings and elytra acuminate, the latter green before, brownish and somewhat pellucid behind; the former brownish, reticulated with brown, the costal margin slightly reddish at the base: thorax slightly carinated, margined, the sides anteriorly with little spines.

Described from a specimen in the collection of A. Macleay, Esq. who obtained it from New-Holland, where it is far from common.

Dramm Engraved & Published by R.P. Noddin



OURAPTERYX.

PHALÆNA, *auctorum.*

CHARACTER GENERICUS.

Antennæ in utroque sexu setaceæ, simplices.

Palpi cylindrici, breviter-hirsuti, obtusi, articulo ultimo penultimo breviore.

Alæ extensæ; anticæ triangulatæ; posticæ truncato-caudatæ.

LARVA nuda, geometrica, 10-poda.

OURAPTERYX.

GENERIC CHARACTER.

Antennæ in both sexes setaceous, simple.

Palpi cylindric, shortly-hirsute, obtuse, the last shorter than the penultimate joint.

Wings extended; anterior ones triangular; hinder ones truncate-caudate.

CATERPILLAR naked, looping, with ten feet.

TAB. XXXV.

FIG. I.

OURAPTERYX POLITATA.

O. citrina; alis fascia transversa maculisque fusco-luteis; anticis macula semicirculari nigricante; posticis ciliis internis et posticis fuscescentibus.

Phalæna politata.

Fabr. Ent. Syst. 3, p. 2, 163, 123.
Cram. Ins. 2, Tab. 139, E.

Habitat Surinami.

POLISHED OURAPTERYX.

Citron-colour; wings with a transverse band and spots of brownish yellow, anterior ones with a semicircular blackish spot; hinder ones with the internal and hinder fringe brownish.

Inhabits Surinam.

FIG. II.

OURAPTERYX SAMBUCARIA.

O. flavicans; alis anticis strigis duabus, posticis striga unica obscurioribus, his apice bipunctatis.

Phalæna Sambucaria. *Linn. Syst. Nat.* 2, 860, 203.
Fabr. Ent. Syst. 2, 2, 134, 19.

Habitat in Europæ Sambuco vulgatissime.

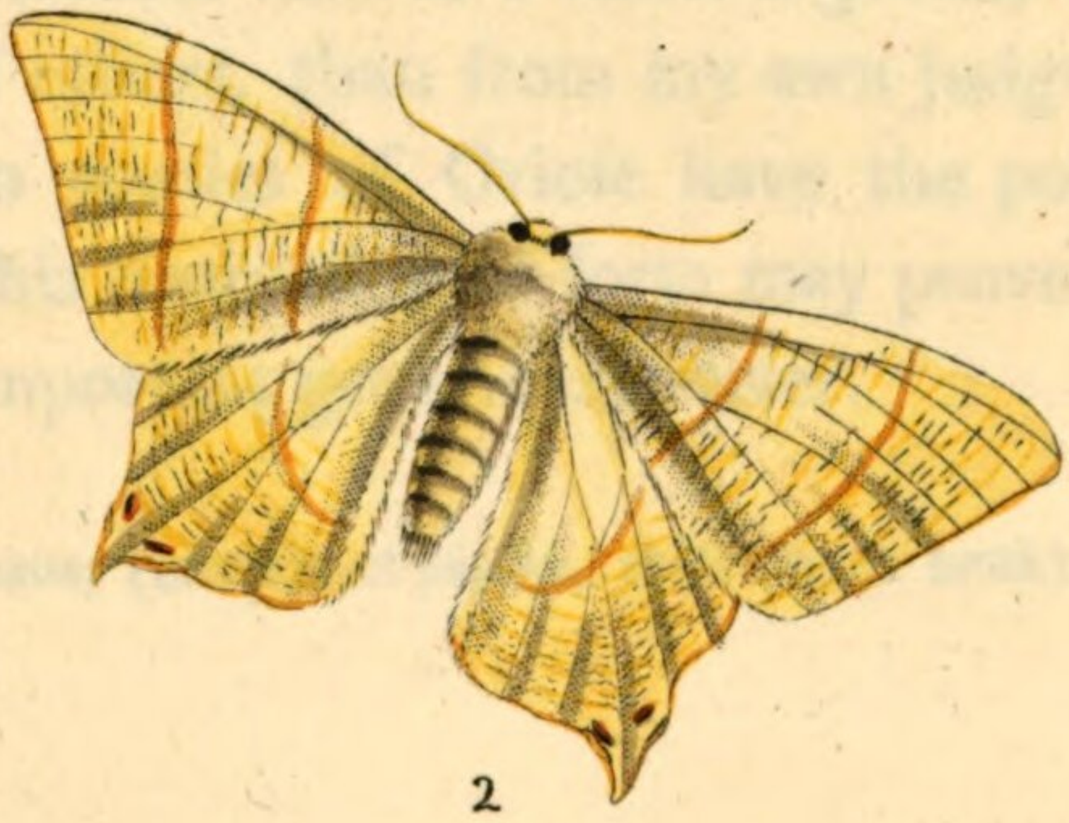
ELDER OURAPTERYX.

Yellowish; anterior wings with two stripes, hinder with one dark stripe, the latter with two spots at their tips.

I cannot conceive what can have induced Linnæus and his followers to ascribe pectinated antennæ to this species: it is found in abundance throughout the greater part of Europe, and is named in Britain the *Swallow-tail Moth*.

35

1



2

AMBLYRAMPHUS*.

Character Genericus.

Rostrum rectum, subconicum, apice obtuso, depresso.
Pedes simplices, ambulatorii digitis tribus anticis, uno postico.

AMBLYRAMPHUS.

Generic Character.

Beak strait, somewhat conic, point obtuse; depressed.

Feet simple, formed for walking, with three toes before, and one behind.

This genus differs from *Oriolus* (Oriole), in having the point of the beak rounded and depressed instead of sharp. The bare spot in the forehead behind the base of the upper mandible terminates in a point, as in the genuine Orioles.

I am induced to consider this as a distinct genus, rather from the opinion of others, than from my own judgment; but as all the known species of Oriole have the point of their beaks acute, this distinction of form may prove to be a very natural and important generic character.

* Ab Αμβλυς, obtusus, (blunt), et ῥάμφος, rostrum, (a beak).

TAB. XXXVI.

AMBLYRAMPHUS BICOLOR.

A. nigro-ater; capite, collo, gula, pectore, femoribusque coccineis; rostro, pedibusque nigricantibus.

Habitat in Cayenne?

Mus. Dom. Comyns.

BICOLORED AMBLYRAMPHUS.

Deep black approaching to sooty-black; head, neck, throat, breast, and thighs, scarlet; beak and feet blackish.

This new and singular bird is figured from the extensive ornithological collection of my friend W. Comyns, Esq. of Mount Pleasant, near Dawlish.

It is supposed to inhabit Cayenne.

Drawn Engraved & Published by R.P. Nodder Tavistock St. London.

CARYCHIUM.

CARYCHIUM, *Müller.*
HELIX, *Gmelin.*
TURBO, *Montagu, Maton et Rackett.*

CHARACTER GENERICUS.

Testa univalvis, ovalis aut oblonga, spiralis: *spira* elevata, regularis, obtusa, anfractibus duobus ultimis maximis: *os* integrum, elongatum: *labium internum* plicatum, infra medium cavernoso-inflexum; *externum* incrassatum, marginatum.

ANIMAL *tentaculis* duobus cylindricis, brevibus, obtusis, *oculis* ad basin postice: *operculo* nullo.

CARYCHIUM.

GENERIC CHARACTER.

Shell univalve, oval or oblong, spiral; *spire* elevated, regular, obtuse, with the two last whirls very large; mouth entire, elongate: *internal lip* plicate, with a hollow below the middle: *external lip* thickened, margined.

ANIMAL with two cylindric, short, obtuse *tentacula*, with *eyes* at their internal base; *operculum* none.

The genus *Carychium* was instituted from the structure of the animal by Müller, but it has either been confounded with *Auricula*, (from which it is at once distinguished by having the two last volutions remarkably larger than the others, and by the want of the upper part of the inner lip), or has been entirely neglected by the followers of De Lamarck.

TAB. XXXVII.

CARYCHIUM UNDULATUM.

C. anfractibus quinque, basilari lutescente fasciis fusco-ferrugineis obliquis undulosis, superis fusco-ferrugineis concoloribus, elevato-undulatis; ore albo, labio interno uniplicato.

Habitat in St. Vincent insula.

UNDULATED CARYCHIUM.

Whirls five, the last dirty yellow with brown-rusty oblique undulating bands; upper volutions plain brown-rust coloured with elevated undulations; mouth white, internal lip with one fold.

Inhabits St. Vincent.

The following species inhabits Britain, viz.

CARYCHIUM MINIMUM.

C. pellucido-albidum; anfractibus quinque longitudinaliter striatis; labio interno bidentato.

Carychium minimum. *Müll. Verm.* 2, 125, 321.
Helix Carychium. *Gmel. Syst.* 3665.
Turbo Carychium. *Mont. Test. Brit.* 2, 339.
Trans. Lin. Soc. 8, 182.
Pult. Hutch. Dorset. tab. 21, fig. 16.

Habitat in Europæ sylvis sub muscis passim.

LEAST CARYCHIUM.

Pellucid-whitish, with five longitudinally-striated volutions; internal lip with two teeth or folds.

Inhabits the European woods under moss every where. When alive the shell is brownish, with the basal and half of the penultimate whirl whitish. The inner lip has sometimes the rudiment of a third tooth placed above the other two teeth.

Drawn Engraved & Published by R.P. Nodder Tavistock St. London

AVICULA.

MYTILLUS, *Linn., Gmel., Chem.*, &c.

AVICULA, *Cuvier, De Lamarck, Sowerby.*

GENERIC CHARACTER.

Testa bivalvis, inæquivalvis, alata, ad unum latus paulum hians: *alæ* inæquales: *cardo* obsolete, obtuse unidentatus: *ligamentum* marginale.

ANIMAL byssoferum.

BIRDSHELL.

Shell bivalve; unequal-valved, winged, gaping on one side: *wings* unequal: *hinge* with one obsolete obtuse tooth: *ligament* marginal.

ANIMAL furnished with a byssus.

The shells of this genus are generally furnished with a very long wing-like process on that edge opposite to the gaping side, and this wing varies in proportion to the body of the shell in the different species. The inner border is generally of a darker colour, without that pearly lustre, which characterises the inside surface; in some of the species (particularly in those with short wing-like processes) both valves are similar in this respect; in others this peculiarity is predominant in, or is entirely confined to, the smaller valve.

One indigenous species has been discovered amongst some coral from the Plymouth Sound, by that most zealous and successful investigator of British shells, C. Prideaux Esq. of Kingsbridge.

TAB. XXXVIII.

FIG. I.

AVICULA CHINENSIS.

A. luteo-citrina, glabra, fasciis duabus fusco-rufis radiatis.

Habitat in Mari Sinensi.

CHINESE AVICULA.

Dirty-citron colour, smooth, with two brownish-red radiating bands.

This pretty shell is found in the Chinese seas in great abundance. The letter a, points out the situation of the byssus or beard by which it adheres to rocks, corals, and other hard bodies.

FIG. II.

AVICULA MORIO.

A. testa nigra, concentrice striata; epidermite fusca, undulato-elevata, in lineas ab umbone radiantes digesta.

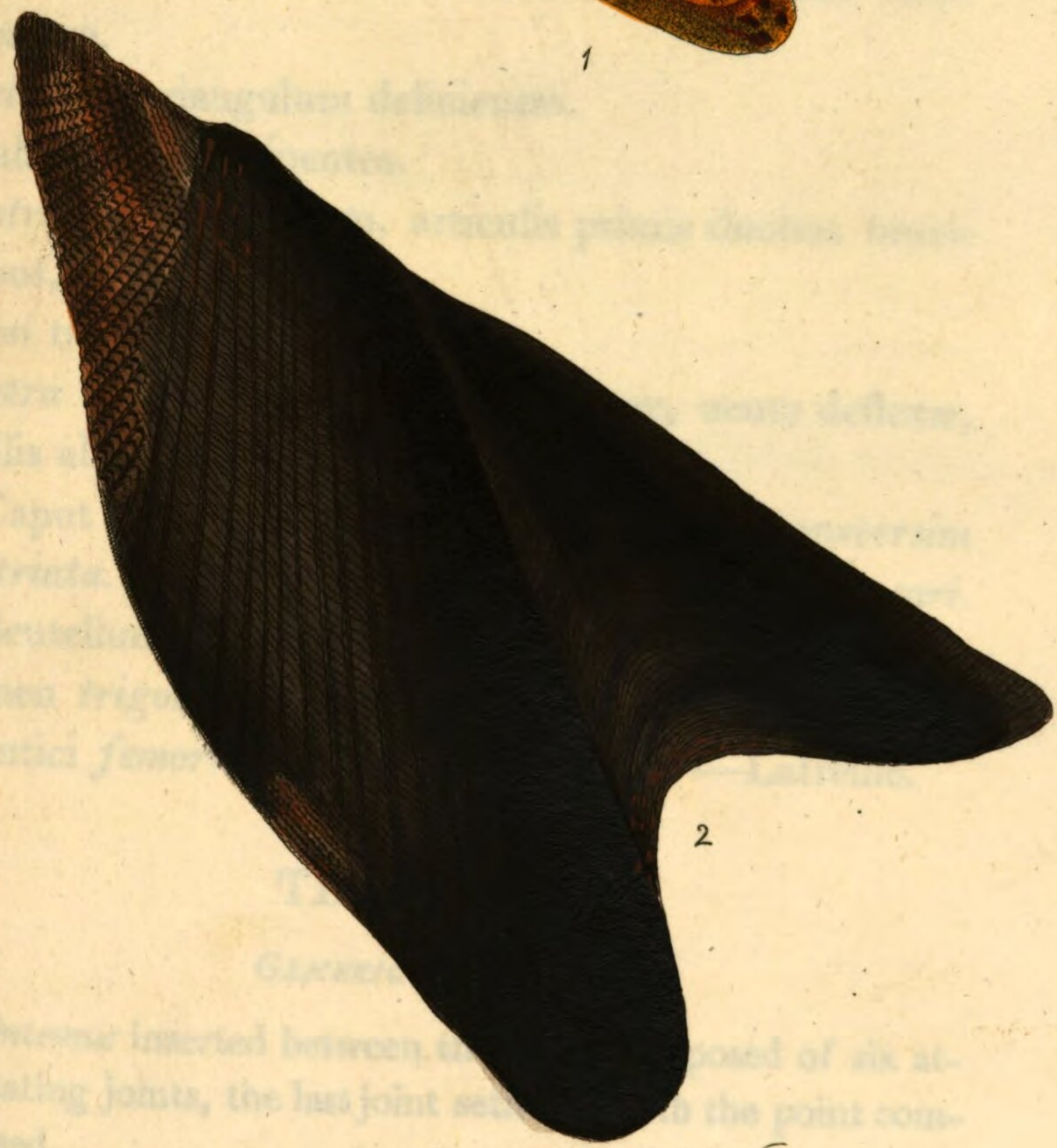
Habitat in India orientali apud Pulo Condore, insulam.

BLACK AVICULA.

Black, striated concentrically; epidermis brown, elevated into undulations, which are arranged in lines ratiating from the beak.

This rare shell was obtained from Pulo Condore, an East Indian island, and is preserved in the British Museum.

1



2

Drawn Engraved & Published by R P Nodder.

TETTIGONIA.

CICADA, *Linn., Oliv., Lam., Latr., &c.*
TETTIGONIA, *Fabricii, Donovan.*

CHARACTER GENERICUS.

Antennæ inter oculos insertæ, sex-articulatæ, decrescentes, articulo ultimo setiformi ad apicem compresso.

Ocelli tres triangulum delinientes.

Oculi valde prominentes.

Rostrum triarticulatum, articulis primis duobus brevibus, ultimo longissimo.

Tarsi tri-articulati.

Elytra et *Alæ* nervosæ sæpius vitreæ, acute deflexæ, illis abdomine longioribus.

" Caput *transversum*, fronte *elevata*, *transversim striata*. Thorax *segmento antico transverso-lineari*. Scutellum *in crucem decussatum prominens*. Abdomen *trigono-conicum*. Pedes *breves approximati*; antici *femoribus incrassatis dentatis*."—Latreille.

TETTIGONIA.

GENERIC CHARACTER.

Antennæ inserted between the eyes, composed of six attenuating joints, the last joint setiform, with the point compressed.

Ocelli three, arranged in a triangle.

Eyes very prominent.

Rostrum three-jointed, the two first joints short, the third very long.

Tarsi three-jointed.

Elytra and *wings* nervose, generally glassy, acutely deflexed, the former longer than the abdomen.

"Head *transverse, with the* front *elevated and striated transversely.* Thorax *with the first segment transversely linear.* Scutellum *like the letter* X, *prominent.* Abdomen *triangular-conic.* Feet *short and approximate;* anterior thighs *thick, toothed.*"—Latreille.

The *Tettigoniæ* emit a very shrill sound, whence they are called by the French, *chanteuses,* or singers: they are supposed to be the *cicadæ* of Virgil, which idea has caused some entomologists to retain that name to this genus; but this being a very doubtful point, the name given by Fabricius should not have been rejected.

1

2

Engraved & Published by R. P. Nodder Tavistock St. London

TAB. XXXIX.

FIG. I.

TETTIGONIA MARGINATA.

T. nigra; dorso fasciis, thorace maculis, alarum costa, pedibusque rufescentibus; alis elytrisque hyalinis, immaculatis: femoribus antice nigro.

Habitat in Australasia.

MARGINED TETTIGONIA.

Black; bands on the back, spots on the thorax, fore edge of the wings and feet reddish; wings and elytra hyaline, without spots; anterior part of the thighs black.

Inhabits New Holland.

FIG. II.

TETTIGONIA HARRISII.

T. nigra; capite thoraceque maculis, dorso fasciis rufescentibus; pedibus posticis, femoribus quatuor anterioribus ventreque lutescentibus; abdomine utrinque macula laterali, sericea, pallida.

Habitat in Australasia vulgatissime.

HARRISIAN TETTIGONIA.

Black; head and thorax spotted, and back banded with reddish; hinder feet, four anterior thighs, and belly, dirty

yellow; abdomen on either side with a lateral, pale, silky spot.

Tettigonia Harrisii is very common in New Holland. It was first sent home by the late G. P. Harris, Esq. who informed me that it was named by the colonists, (from the noise it made whilst on the wing), the *Razor-grinder*.

MICTIS.

Character Genericus.

Caput ad oculos in thoracem intrusum: *vertex ocellis* duobus transversim dispositis: *antennæ* filiformes 4-articulatæ, articulis cylindricis, æqualibus, aut primo sublongiore.

Pedes anteriores consimiles, postici femoribus incrassatis, tibiisque interne dilatatis: *tarsi* ommes triarticulati, articulo primo reliquis conjunctis longiore.

Corpus elongatum, supra planum: *thorax* trigonus antice valde angustatus: *abdomen* lateribus dilatatis.

Generic Character.

Head immersed even to the eyes within the thorax; *vertex* with two *ocelli* placed transversely; *antennæ* filiform, four-jointed, joints cylindric, equal, or with the first joint rather longer.

Anterior four feet alike in size and form; *hinder ones* with thick thighs and with the internal side of the tibiæ dilated; *tarsi* all three-jointed, the first joint longer than the other two conjoined.

Body elongate, flat above; *thorax* triangular, very narrow in front; *abdomen* with dilated sides.

TAB. XL.

MICTIS CRUCIFERA.

M. fuscescens; antennis articulo extimo, dorsoque macula decussata flavicantibus: femoribus anterioribus subtus bispinulosis.

Habitat in Australasia frequens.

CROSS-BEARING MICTIS.

Brownish; last joint of the antennæ and a cross-shaped mark on the back yellow; four anterior thighs with two small spines beneath.

Inhabits New Holland, where it is not uncommon.

The upper figure represents the male insect, which is distinguished from the other sex by the more acute expansion of the hinder shanks, and by three elevations on the under side of the base of the abdomen; the whole animal too is narrower, as in most other male insects.

Drawn Engraved & Published by R. P. Nodder Tavistock. St. London

PIPRA.

PIPRA. *Linn., Lath., Gmel., Cuv., Dum.*
MANACUS, *Brisson.*

CHARACTER GENERICUS.

Rostrum breve, validum, basi subtrigonum apice subincurvum.

Pedes simplices, digitis tribus anticis*, uno postico.

Ungues curvati sæpius compressi.

Cauda brevis.

MANAKIN.

GENERIC CHARACTER.

Beak strong, with the base somewhat triangular, and the point slightly curved.

Feet simple, with three toes before and one behind; *nails* curved, and generally compressed: the middle and outer toes connected at their base.

Tail short.

The *Manakins* are remarkable for the gaiety of their colours, and are represented as very lively birds, seldom remaining long in the same attitude; their flight is short, but quick; they frequent woods; most of the species live in societies, and many of them are said to sing delightfully.

Some *Pipræ* nidificate in hollows, and are said to compose their nests of coarse materials.

In the early editions of the Systema Naturæ, Linnæus confounded Pipra with *Parus* (Titmouse), but in the twelfth edition he established it as a distinct genus.

* *Medio cum exteriore ad basin saltem connexo.*

TAB. XLI.

PIPRA DESMARETII.

P. cæruleo-atra, nitens; ventre albido; ano, gula, pectoreque coccineis.

Habitat in Australasia rarior.

DESMARETIAN MANAKIN.

Shining blue-black; belly whitish; vent, throat, and breast, scarlet.

I am indebted for this new and elegant species of Manakin, to Mr. A. Huey, by whom it was discovered in New Holland, where it appears to be of very rare occurrence, two specimens only having been observed in the English collections.

It is named after Desmaret, author of a most splendid work on this genus of birds.

Drawn Engraved & Published by R.P. Nodder Tavistock Lonedon.

SCARABUS.

HELIX, *Linnæi.*
SCARABUS, *De Montford.*

CHARACTER GENERICUS.

Testa univalvis, oblongo-ovalis, spiralis: *spira* elevata, regularis, acuta; *anfractu* ultimo maximo: *os* integrum, elongatum, angustum; *labium* internum dentatum, infra medium cavernoso-inflexum; *labium* externum incrassatum, submarginatum.

ANIMAL ———

SCARABUS.

GENERIC CHARACTER.

Shell univalve, oblong-oval, spiral; *spire* elevated, regular, acute; *last whirl* very large; *mouth* entire, long and narrow; *internal lip* toothed, with a hollow below the middle; *external lip* thickened, somewhat margined.

ANIMAL unknown, but it is probably very analogous to the genus *Carychium*.

TAB. XLII.

SCARABUS IMBRIUM.

S. albidus ferrugineo-variegatus; labio interno triplicato dente supero elongato; labio externo dentibus 4-5 inæqualibus.

Helix Scarabæus. *Linn.*

Cochlea Imbrium. *Rumph.*

Scarabus Imbrium. *De Mont. Conch. Syst.* vol. 2, p. 306.

IMBRIAL SCARABUS.

Whitish, variegated with rust-colour; internal lip with three folds, the upper one elongate; external lip with four or five unequal teeth.

The Imbrial Scarabus is rare; it inhabits the marshes and woods of Asia, and, according to Linnæus, occurs likewise amongst the mountains.

Drawn Engraved & Published by R.P. Nodder. Tavistock St. London.

TAB. XLII.

SCARABUS IMBRIUM.

AVICULA.

CHARACTER GENERICUS, at page 85.

BIRDSHELL.

GENERIC CHARACTER, at page 85.

In the last Number, two species of the first family of this genus were introduced, and it was my intention to have given the *Pearl Shell* in the following plate; but it seemed to be a more desirable object, first to point out the characters of the second division of *Avicula*, which in general form bears a very near resemblance to the genus *Margarita*, although the structure of the hinge is so totally distinct.

Bayerische
Staatsbibliothek
München

TAB. XLIII.

AVICULA RADIATA.

A. testa grisea, radiis purpurascentibus: epidermide concentrice elevata, processibus in lineis radiantibus digestis.

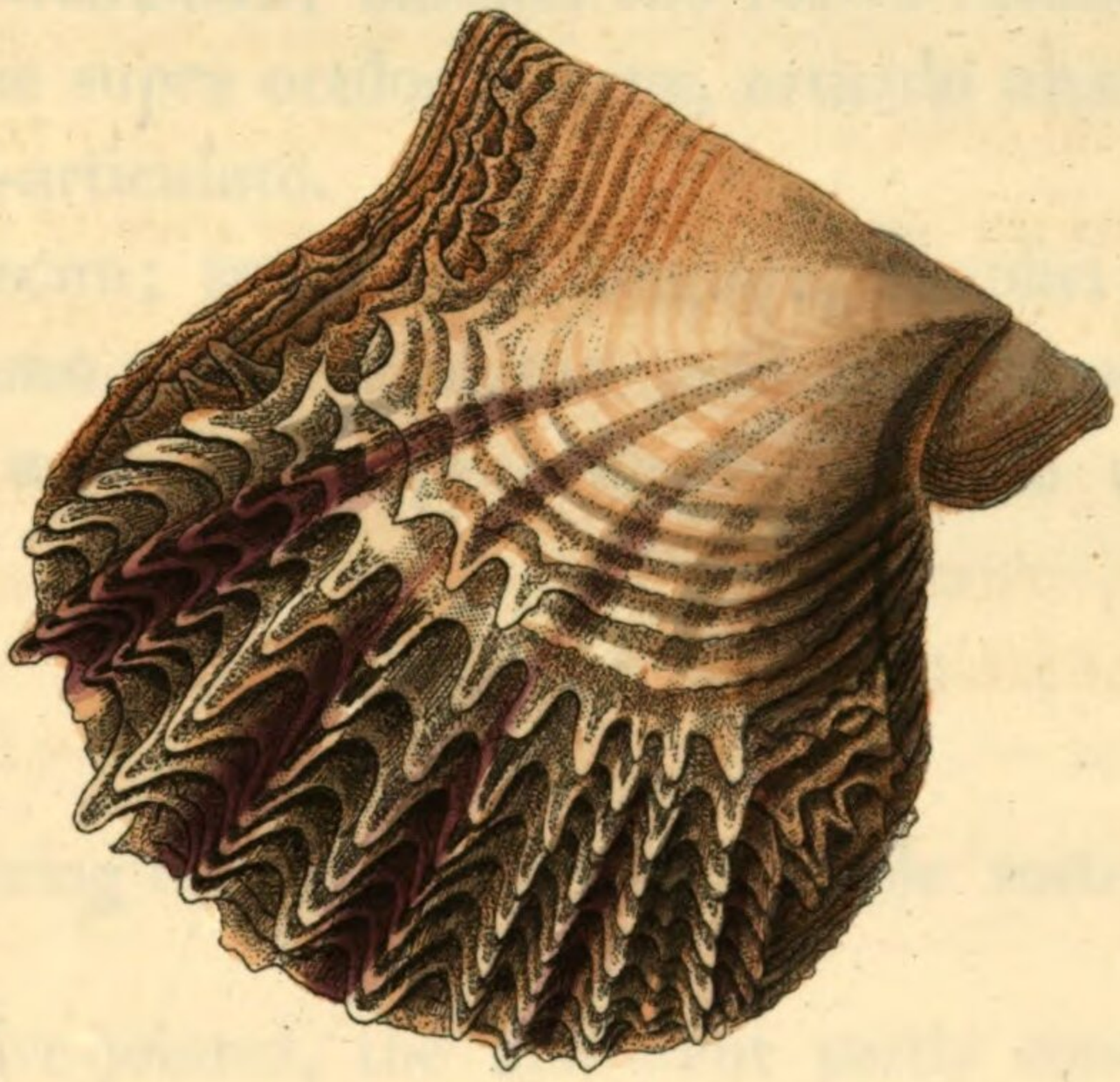
Habitat in Indiæ occidentalis mari?

RAYED BIRDSHELL.

Shell griseous with purplish rays: epidermis concentrically elevated, with processes arranged into radiating lines.

This shell is generally supposed to inhabit the West-Indian Seas, but I have not been able to ascertain the truth of this conjecture.

The elevated processes of the epidermis, on close examination, seem to be membranaceous, with fine concentric rings of shelly matter deposited on them.



Drawn Engraved & Published by R. P. Nodder Tavistock St. London

NEBALIA.

CANCER, *Herbst.*
MONOCULUS, *Montagu.*

CHARACTER GENERICUS.

Thorax latera amplectans, antice rostrata, *rostro* mobili.

Abdomen 5-articulatum, articulo primo subrecondito, ultimo processibus duobus elongato-conicis setâ terminatis.

Oculi duo pedunculati, mobiles sub rostro recondendi.

Antennæ duæ supra oculos insertæ, articulo ultimo bifido multi-articulato.

Pedes duodecim; pari antico longiore, simplici; segmento ultimo multiarticulato; paribus quinque posterioribus æqualibus, approximatis, articulo ultimo bifido.

NEBALIA.

GENERIC CHARACTER.

Shell embracing the sides, with a moveable rostrum in front.

Abdomen five-jointed, the first joint partly concealed, the last joint with two elongate-conic processes terminated with a seta.

Eyes two, pedanculated, moveable, capable of being retracted beneath the rostrum.

Antennæ two, inserted above the eyes, the last joint bifid and composed of many smaller joints.

Feet twelve; anterior pair longest, simple, with the last joint composed of many other joints; five hinder pair equal, and approximate, with the last joint bifid.

In a systematic work, this genus would hold a very conspicuous and important place, as it is not referable to any family hitherto established. Its breathing organs are the same as in the other *Crustacea Malacostraca*, to which subclass it belongs.

TAB. XLIV.

NEBALIA HERBSTII.

N. griseo aut cinereo-flavicante; oculis nigris.
Cancer bipes. *Herbst von Kraben.* tom. 2, tab. 34, fig. 7.
Monoculus rostratus. *Montagu Trans. Lin. Soc.* 11, p. 14, tab. 2, fig. 5.
Habitat in oceano Europeo.

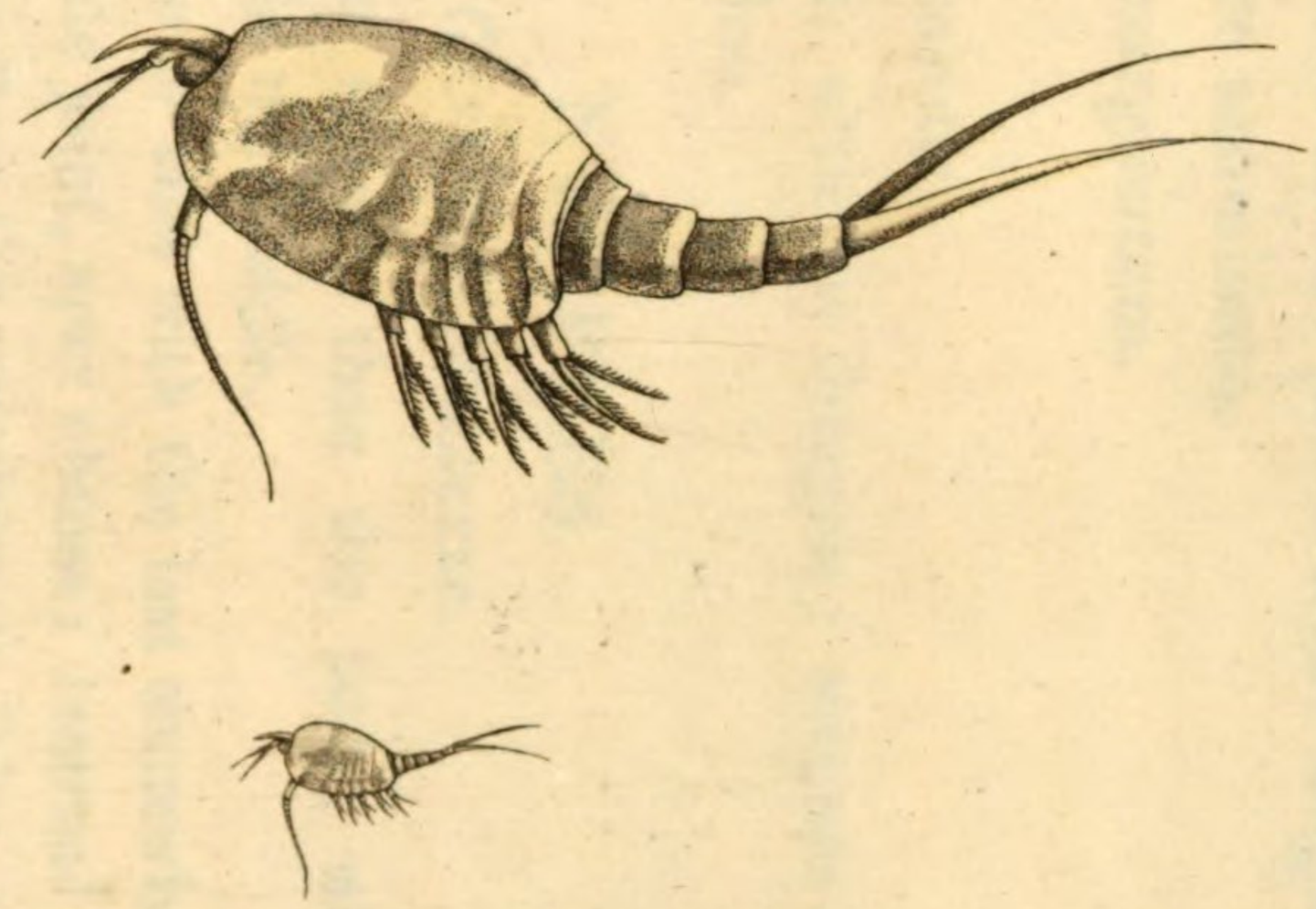
HERBSTIAN NEBALIA.

Grey or cinereous-yellow, with black eyes.
Inhabits the European ocean.

This curious animal was first described by Herbst, in his elaborate work on the Linnean genus Cancer, and afterwards by Montagu in the eleventh volume of the Transactions of the Linnean Society; but as neither of these authors were acquainted with the exact number of legs, and as it constitutes a very distinct genus from any given by modern writers, I have introduced it into this Miscellany, for the purpose of pointing out its characters.

It is not uncommon in the south-west and western coasts of England, occurring under stones that lay on mud amongst the hollows of the rocks. The under figure represents the animal of the natural size, the other magnified. To avoid confusion, the members of one side only are exhibited.

+ Cancer bipes, O/R Tab. Fn. grand Nro 223. f 2.



Engraved & published by R.P. Nodder, Tavistock St. Covent

NYMPHES.

Character Genericus.

Antennæ filiformes corpore breviores, articulis medio subcrassioribus.

Palpi quatuor:

Exteriores articulo ultimo præcedente sublongiore, cylindrico, apice obtuso:

Interiores articulo ultimo præcedente longiore, subclavato, apice acuminato.

Labium medio emarginatum.

Ocelli nulli.

Tibiæ apice bicalcaretæ.

Tarsi 5-articulati, articulis integris: *ungues* duo curvati: *pulvilli* duo.

NYMPHES.

Generic Character.

Antennæ filiform shorter than the body, with joints somewhat thicker in the middle.

Palpi four: *exterior ones* with the last somewhat longer than the penultimate joint, apex obtuse: *internal ones* with the last joint longer than the penultimate joint, somewhat clubbed, with the point acuminate.

Lip with the middle notched.

Ocelli none.

Tibiæ with two spurs at their points.

Tarsi five-jointed, joints entire; *nails* two, curved; *pulvilli* two.

This genus is at once distinguished from *Osmylus* by the absence of ocelli, and from *Hemerobius* by the form of its palpi; but there are other distinctions between these genera, which may be discovered by comparing their characters.

TAB. XLV.

NYMPHES MYRMELEONOIDES.

N. corpore pedibusque rufescentibus; antennis nigris apice rufis; alis hyalinis apice pterigostiisque rufescentibus illis macula albicante.

Habitat in Australasia.

Mus. Macleay, Nostr.

Totum corpus, et pedes griseo-rufescunt. Abdominis dorsum nigricans. Pterigostium costale totum, et pterigostia sub-costale et post-costale basi nigra.

ANTLION NYMPHES.

Body and feet reddish; antennæ black, tipped with reddish; wings hyaline, with reddish tips and wing-bones, the tips with a white spot.

For this new and elegant insect, I am indebted to the kindness and liberality of my worthy friend W. J. Hooker, Esq. who sent it to me, together with his whole collection of neuropterous insects, on which I propose hereafter to write a dissertation. There is another specimen in the museum of A. Macleay, Esq.

Body and feet griseous-reddish; back of the abdomen blackish; all the costal, and the base of the sub and post-costal wing-bones, black.

Brann Engraved & Published by R.P. Nodder in Tavistock St.t London.

Drawn Engraved & Published by R.P. Nodder. Tavistock St. London.

HIPPOCAMPUS.

HIPPOCAMPUS*, *Plinii.*
SYNGNATHUS, *Linn., Bl., Gmel., Cuv., Dum., &c.*

CHARACTER GENERICUS.

Corpus compressum scutis polyhedris cataphractum, articulatum, tuberculatum: *truncus* heptagonus, altus, pinnis pectoralibus, dorsali analique distinctis: *cauda* tetragona, aptera.

Caput crassum, cristatum, antice in rostrum subcompressum productum: *os* minimum, inerme, terminale, mandibula inferiore tantum mobili: *nucha* exspiraculo utrinque uno.

HIPPOCAMPUS.

GENERIC CHARACTER.

Body compressed, armed with polyhedral scales, jointed, tuberculated: *trunk* seven-sided, high, with pectoral, dorsal, and anal fins distinct: *tail* four-sided, without the caudal fin.

Head thick, crested, anteriorly produced into a snout terminated by a small toothless mouth, having the under jaw alone moveable: *neck* on each side, with one hole for exspiration.

I have for some time considered the *Syngnathus* of au-

* Ἱππόκαμπος ab ἵππος equus, (a horse), et καμπτω, flecto, (to bend).

thors as constituting a family*, rather than a genus, and now venture to unite some of the species under the generic appellation *Hippocampus*, a name by which, at least, one of the species was known to ancient naturalists†.

A. *Corpore haud ramulifero. (Body not bearing branches).*

Sp. 1. HIPPOCAMPUS TRIMACULATUS.

H. corpore angulis subtuberculatis; crista 5-tuberculata; oculis superne gulaque utrinque spina acuta armatis.

Habitat in mari Sinensi et Indico vulgatissimus, lateribus utrinque maculis tribus nigris notatus.

THREE-SPOTTED HIPPOCAMPUS.

Angles of body slightly tuberculated; crest with five tubercles; eyes above, and the throat on each side armed with a sharp spine.

This species is very abundant in the Indian and Chinese seas. The upper part of the sides, in all the specimens which I have examined, are marked with three black spots.

Sp. 2. HIPPOCAMPUS ANTIQUORUM.

H. corpore angulis subtuberculatis; crista rugosa; oculis superne gulaque utrinque tuberculo obtuso armatis.

Syngnathus Hippocampus. *Auctorum.*

Habitat in mari Mediterraneo, a Dom. Risso optime descriptus.

* All the genera of which carry their eggs in a hollow of the tail.

† *Syngnathus foliatus of Shaw may be considered as the type of a peculiar division of the genus Hippocampus.*

Drawn Engraved & Published by R.P. Nodder. Tavistock St. London.

COMMON HIPPOCAMPUS.

Angles of body slightly tuberculated; crest rough; eyes above, and throat on each side armed with an obtuse tubercle.

Inhabits the Mediterranean sea, and is well known under the titles, *Sea-horse*, or *Cheval-marin*.

B. *Corpore ramulifero. (Body bearing branches).*

TAB. XLVII.

HIPPOCAMPUS RAMULOSUS.

H. corpore angulis tuberculatis interstitiis rostrosque spinulosis; capite dorsoque duplici serie ramuloso ramulis ramulosis; gula utrinque nasoque ante oculos unispinosis.

Habitat ———

Mus. Britan.

TWIG-BEARING HIPPOCAMPUS.

Angles of body tuberculated, with the interstices and rostrum spinulose; head and back with a double series of branched twigs; throat on each side, and the nose before the eyes with one spine.

The locality of this new and curious species, which is preserved in the British Museum, is not known.

COMMON HIPPOCAMPUS.

Angles of body slightly tuberculated; crest rough; eyes above, and throat on each side armed with an obtuse tubercle.

Inhabits the Mediterranean sea, and is well known under the title, Sea-horse, or Cheval-marin.

B. Corpore ramulifero. (Body bearing branches).

TAB. XLVII.

HIPPOCAMPUS RAMULOSUS.

H. corpore angulis tuberculatis, interstitiis rostroque spinulosis; capite dorsoque dupliciserie ramuloso ramulis ramulosis; pinna ani corpus ante occulos insipitosis.

Habitat ——

Mus. Britan.

TWIG-BEARING HIPPOCAMPUS.

Angles of body tuberculated, with the interstices and rostrum spinulose; head and back with a double series of branched twigs; throat on each side, and the nose before the eyes with one spine.

The locality of this new and curious species, which is preserved in the British Museum, is not known.

MARGARITA.

MYTILLUS, *Linnæi, &c.*
AVICULA, *Cuvier, De Lamarck.*

CHARACTER GENERICUS.

Testa bivalvis, inæquivalvis, alata, ad unum latus hians: *alæ* inæquales: *cardo* adentatus: *ligamentum* internum in fosula subtriangulari repositum.
ANIMAL byssoferum.

PEARL-SHELL.

GENERIC CHARACTER.

Shell bivalve, unequal-valved, winged, with one side gaping: *wings* unequal: *hinge* toothless: *ligament* internal, placed in a somewhat triangular excavation.
ANIMAL furnished with a byssus.

This genus (called *Concha Margaritifera*, or *Matrix Perlarum)* produces the pearls of commerce*, respecting the formation of which, some of the most absurd notions have been advanced by ancient, and even by modern naturalists; some conceiving them to be the eggs of the pearl shell; others, that they are produced by dew imbibed by the animal in its supposed morning excursions to the surface of the ocean.

Pearls seem to be the effects of a disease† in the animal

* *An interesting account of the Ceylon pearl fishery, may be found in the Asiatic Researches, vol. 5.*

† *See the Memoirs of the French Academy for* 1717, *which contains a curious paper on this subject by Reaumur.*

producing them, and are found in various bivalves and univalves, either adhering to the shell, or imbedded in the fleshy part of the animal.

TAB. XLVIII.

MARGARITA SINENSIS.

M. fusca albo-radiata; interne margaritacea fusco limbata; epidermide concentrice elevata processibus in lineas subradiantes digestis.

Habitat in mari Sinensi.

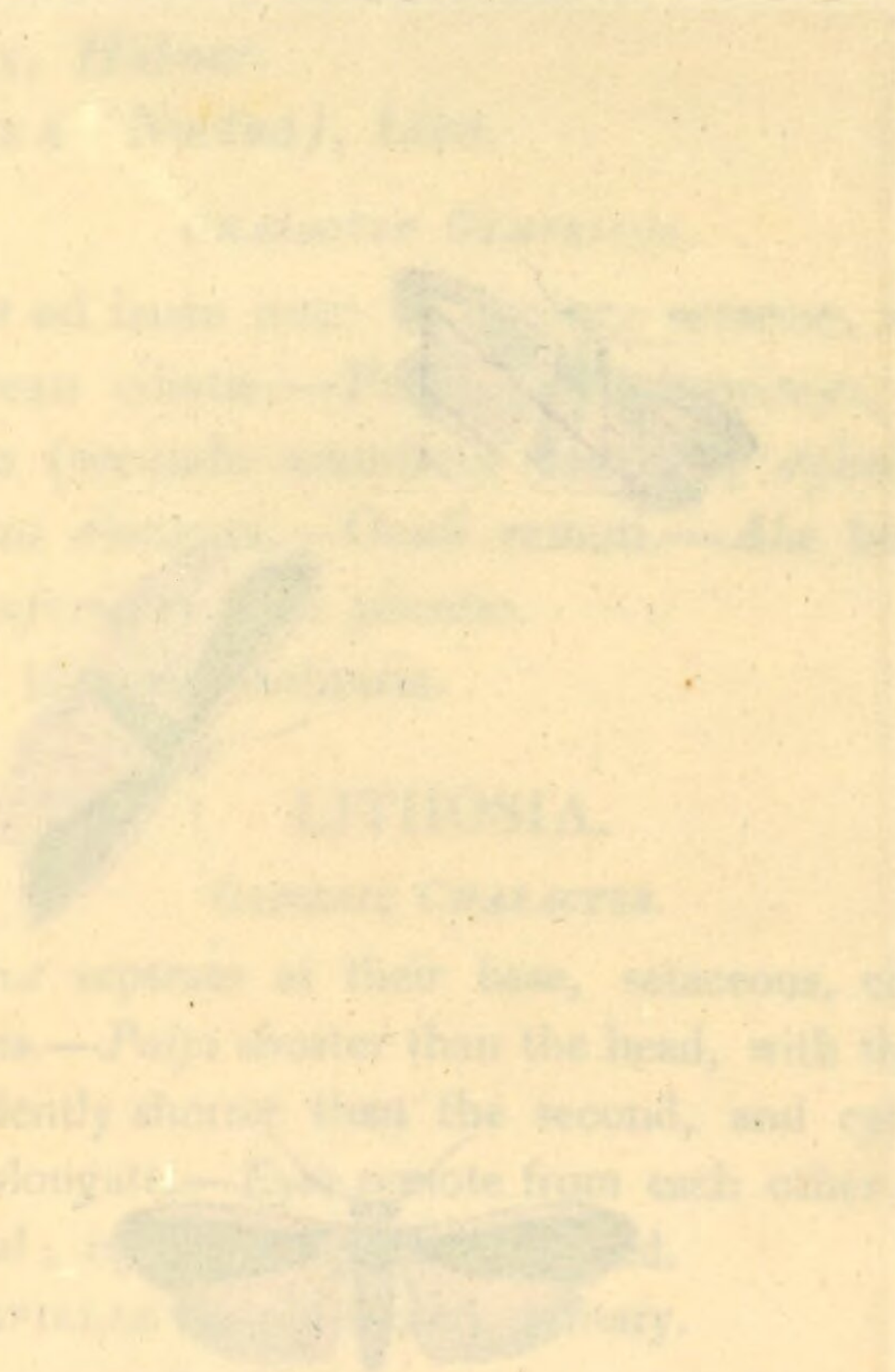
CHINESE PEARL-SHELL.

Brown radiated with white; internally pearly bordered with brown; epidermis concentrically elevated, with processes arranged in somewhat radiating lines.

Inhabits the sea of China, but is rarely found in such perfection as that exhibited in the annexed plate. It seems to have been confounded with the common pearl-shell.

a, shows the excavation for the cartilage, part of which is removed.

Drawn Engraved & published by R.P. Nodder Tavistock St.t London.



1

3

2

LITHOSIA.

LITHOSIA, *Fabr., Latr., Haw.*
BOMBYX, *Hübner.*
PHALÆNA *(Noctua)*, *Linn.*

CHARACTER GENERICUS.

Antennæ ad basin inter se dissitæ, setaceæ, in utroque sexu ciliatæ.—*Palpi* capite breviores, articulo ultimo (secundo manifeste breviore) cylindrico.—*Lingua* elongata.—*Oculi* remoti.—*Alæ* horizontales; *inferiores* valde plicatæ.
LARVA 16-poda, solitaria.

LITHOSIA.

GENERIC CHARACTER.

Antennæ separate at their base, setaceous, ciliated in both sexes.—*Palpi* shorter than the head, with the second joint evidently shorter than the second, and cylindric.—*Tongue* elongate.—*Eyes* remote from each other.—*Wings* horizontal; *inferior wings* much folded.

CATERPILLAR sixteen-footed, solitary.

The heads of the *Lithosiæ* are covered with short scales, and their face is clothed with hair of a moderate length.

TAB. XLIX.

FIG. I. & II. LITHOSIA DISPAR.

L. alis anticis fuscis vitta marginali ciliisque citrinoflavis; posticis flavis apice fuscescentibus abdomine

flavo : (*Mas* alis anticis macula discoidali ad marginem posticum attingente flava).

Habitat in Australasia.

UNEQUAL LITHOSIA.

Anterior wings fuscous, with a marginal streak and fringe of citron-yellow ; hinder wings yellow, tufted with brownish. (*Male* with a central spot on the anterior wings, reaching to the hinder margin).

Lithosia dispar is a native of New Holland. The female bears a considerable resemblance to the following species, but is easily distinguished by the colour of the tips of the hinder wings, and by a black border in front of the marginal streak of the upper wings, which is distinct in both sexes.

Fig. III. LITHOSIA COMPLANA.

L. alis anticis plumbeo-fuscis costa ciliisque citrinoflavis ; posticis flavis immaculatis : abdomine fusco apice flavo.

Phalæna complana. *Linn. Faun. Suec.* 1153.—*Syst. Nat.* 840.

Lithosia complana. *Fab. Sup.* 460.—*Haw. Lep.* 107.

Habitat in Europa vulgatissime.

COMMON LITHOSIA.

Anterior wings lead-coloured-fuscous, with the anterior margin and fringe citron yellow ; hinder wings yellow, without spots.

Common in most parts of Europe, and in Britain.

† Lithosia lutina. Lewin Nat. Hist. Lep. ins. of New South Wales, p. 169, Tab. 15.

VESPA.

VESPA, *Auctorum.*

CHARACTER GENERICUS.

Antennæ sub fronte insertæ, approximatæ, geniculatæ, ab articulo tertio gradatim subclavatæ, apice acuminatæ: articulis tredecim in maribus arcuatis, duodecim in fœminis.

Mandibulæ elongato-quadratæ ad apicem oblique truncatæ, latere apicali quadridentato (latere infero latiore), dente secundo inferis latiore.

Clypeus ad apicem late truncatus, tenue emarginatus et utrinque unidentatus.

Abdomen ovali-conicum antice abrupte truncatum et brevissime pediculatum.

WASP.

GENERIC CHARACTER.

Antennæ inserted under the front, approximate, geniculated, gradually thickening from the third joint, with their extremities acuminate: composed of thirteen arcuate joints in the males, twelve in the females.

Mandibles elongate-quadrate, with the point obliquely truncated, the apical edge broader than the under edge, four-toothed, the second tooth broader than the under ones.

Clypeus with the apex broadly truncate, slightly notched, and furnished with a tooth on each side.

Abdomen oval-conic, anteriorly abruptly truncate, and very shortly pedunculated.

All the *Vespæ* live in societies, which consist of males, females, and neuters or working wasps.

Some impregnated females or queens survive the winter, and in the spring they construct for themselves a small nest containing a few cells, in each of which they deposit an egg. These eggs in very short time produce larvæ (or maggots), which are fed by the parent until they arrive at maturity, when she closes the mouth of their cells. Towards the latter end of the summer they change into the perfect state, and this brood consists entirely of neuters, who with the female, construct a new nest of a larger size, in the cells of which, the female deposits the remaining portion of her eggs, whose offspring are fed and brought up by the neuters. This second brood is made up of males, females, and neuters, and the latter inmates either unite their efforts to enlarge the nest, or a part of them construct a new habitation, and some of the females live over the winter. Thus far I have ventured to assert from my own observations.

TAB. L.

VESPA BRITANNICA.

V. thorace atro postice punctis duobus pedibusque flavis; femoribus basi, tibiisque quatuor anterioribus macula nigris.

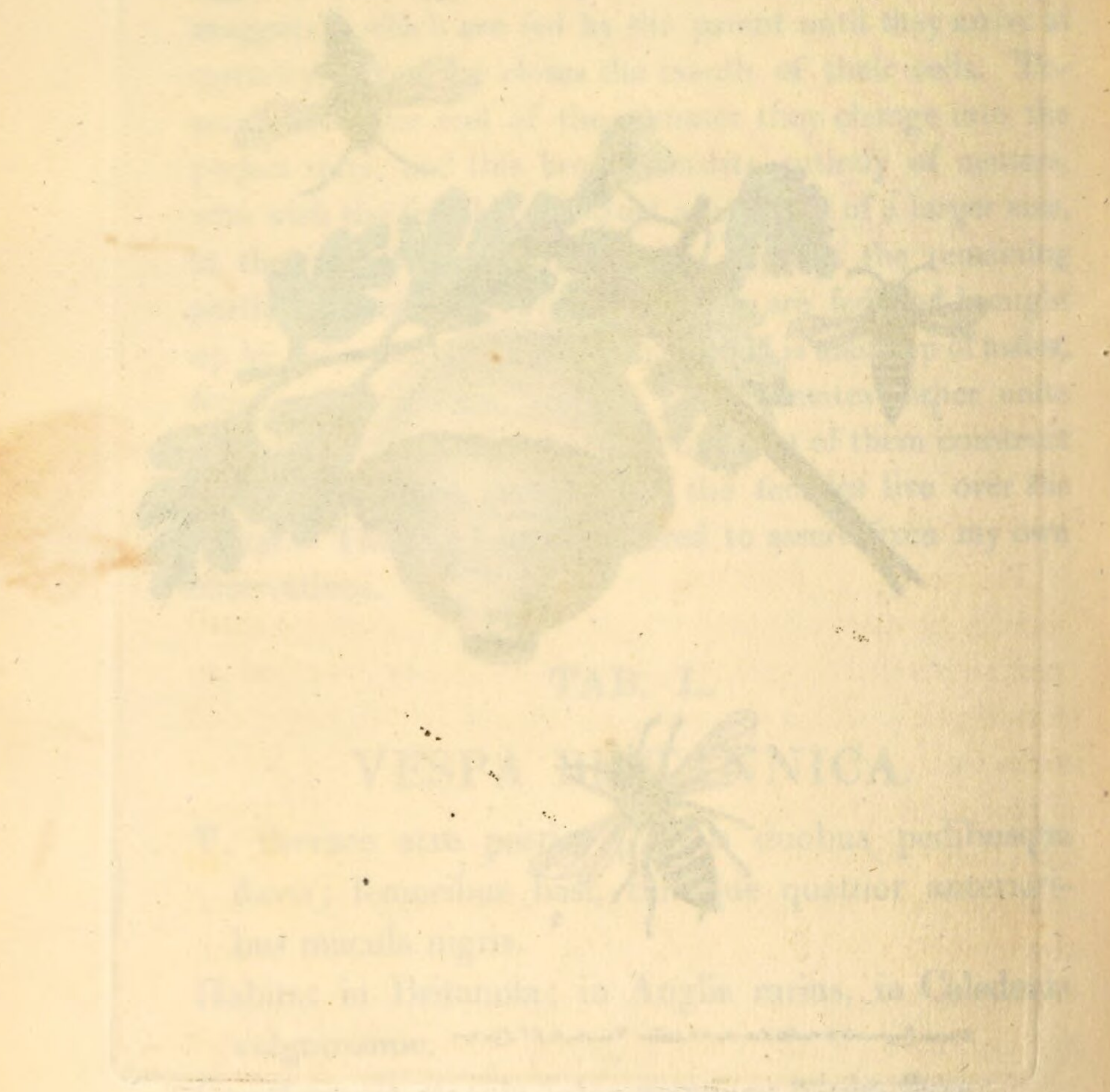
Habitat in Britannia; in Anglia rarius, in Caledonia vulgatissime.

Caput atrum macula inter antennas biloba flava.

Antennæ atræ; scapo antice flavo.

Facies antice flava linea longitudinali atra.

Drawn Engraved & Published by R.T. Nodder Tavistock St. London.



Mandibulæ flavæ nigro-marginatæ.
Palpi lutei.
Thorax ater antice utrinque linea obliqua, lateribusque macula flavis.
Scutellum atrum maculis duabus flavis.
Abdomen supra flavum segmentis basi atro-fasciatis fasciis postice bilobis.
Alæ subfuscescentes aut hyalinæ immaculatæ; *squamulæ* atræ disco piceæ; *pterigostiis* (secundo et tertio nigris exceptis) ferrugineis.
Var. β Tibiis posticis macula nigra.
Fig. 1, mas. 2 fœm. 3 neut.

BRITISH WASP.

Thorax with two yellow spots behind; feet yellow, with the base of the thighs, and a spot on the four anterior tibiæ, black.

This wasp, which is rare in England, is extremely common in Scotland. In the spring the females build a small nest suspended from the eaves of houses, or attached to low bushes. The autumnal nests are found suspended from trees, especially from pines, varying from the size of a pear to that of a foot or more in diameter. In constructing these habitations, the materials are deposited on the outside; and I suspect that these insects enlarge the nest by removing the internal layer with which they probably construct their cells.

The nests are infested with a small coleopterous insect named *Lebia linearis*.

The annexed plate represents the spring nest—Fig. 1. The male; 2. The female; 3. The neuter.

POLOPHILUS.

CUCULUS, *Latham.*

CHARACTER GENERICUS.

Rostrum robustum, subincurvatum.

Nares rectæ, elongatæ.

Pedes simplices; *digitis* duobus anticis, exteriore longiore: *digitis* duobus posticis, interno* breviore ungue longissimo instructo.

COUCAL.

GENERIC CHARACTER.

Beak strong, slightly incurved.

Nostrils strait, elongate.

Legs simple; two toes pointing forward, the exterior of which is the longest; two toes turning backwards, the interior toe furnished with a very long claw.

Le Vaillant was very well acquainted with the characters distinguishing this genus (which he named *Coucal*) from *Cuculus*. The tail consists of ten feathers; the wings are short and rounded, and the feathers of the neck and upper part of the body are generally stiff, with shining edges.

The *Coucals* dwell in woods, feed on insects, and construct their nests in trees. They bring up their young, from whence the name Polophilus† is derived.

* *Digito postico vero.*

† *A* πῶλος *pullus, et* φιλέω *amo.*

POLOPHILUS PHASIANUS.

TAB. XLVI.

P. rufo, flavo nigroque variegatus: capite, collo, gula, jugulo, pectore, dorso abdomineque nigris; cauda nigra supra fasciis transversis albidis, interruptis, punctatis.

Cuculus Phasianus. *Lath. Ind. Orn. Sup.* p. xxx.

Habitat in Australasia.

Mus. Dom. Macleay.

PHEASANT COUCAL.

Variegated with yellow, black, and rufous; head, neck, throat, breast, back, and belly black; tail black above, with transverse interrupted punctated bands.

Pheasant Cuckow. *Lath. Gen. Syn. Sup.* II. p. 137.

The pheasant coucal inhabits New Holland, where it is well known under the title of pheasant cuckow: it is represented one-third of the natural size.

POLOPHILUS VARIEGATUS.

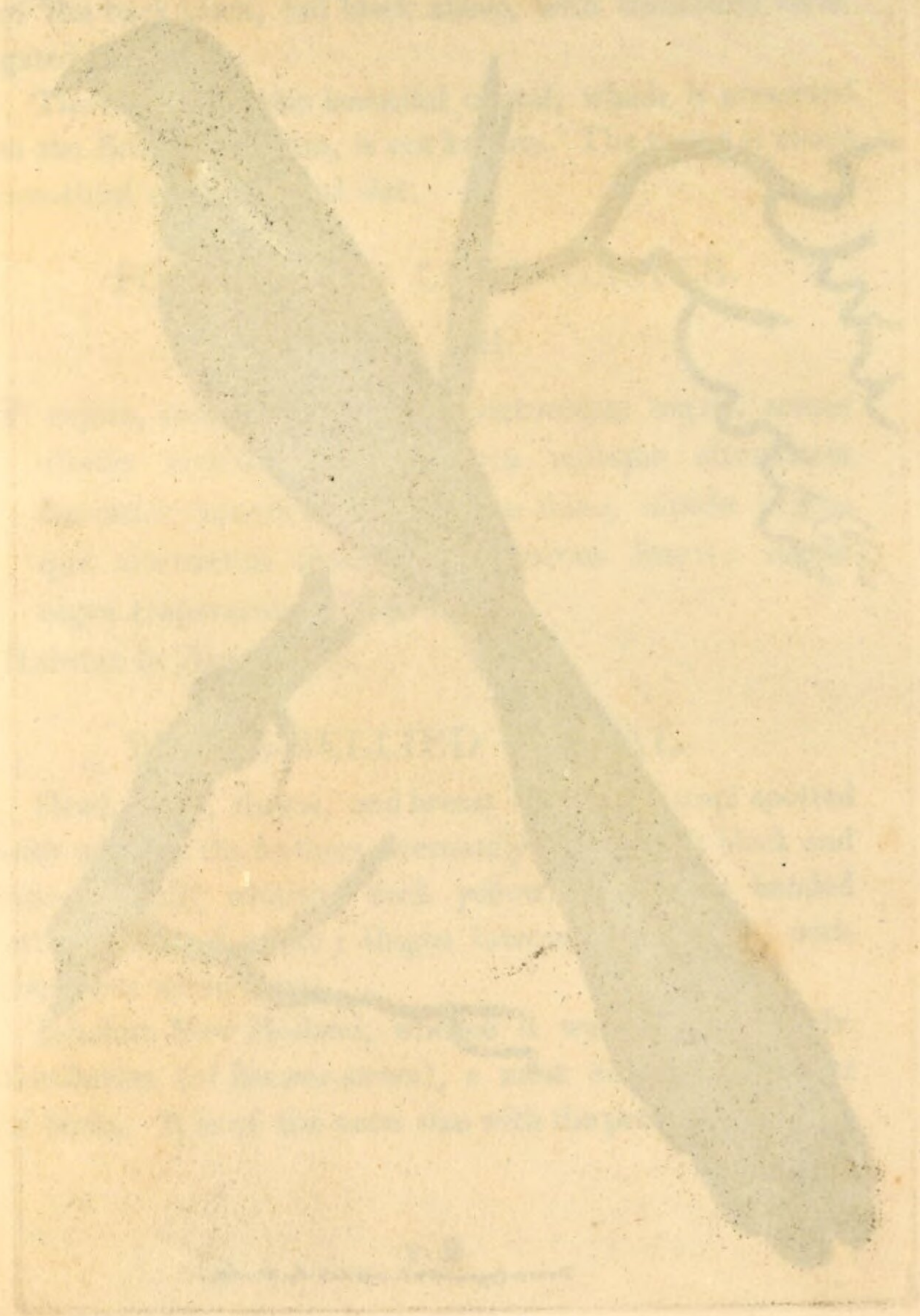
TAB. LI.

P. rufo, flavo nigroque variegatus; dorso postice nigro; cauda nigra supra transversim variegato-fasciato.

Habitat ———

Mus. Britan.

Drawn Engraved & Published by R.P. Nodder. Tavistock St. London.



Drawn Engraved & Published by R.P. Nodder

VARIEGATED COUCAL.

Variegated with rufous, yellow and black; hinder part of the back black, tail black above, with transverse variegated bands.

The locality of this beautiful coucal, which is preserved in the British Museum, is not known. The figure is about one-third of the natural size.

POLOPHILUS LEUCOGASTER.

TAB. LII.

P. capite, collo, gula, jugulo pectoreque nigris, scapis albido notatis, pennis nigro rufoque alternatim fasciatis; ventre albido; dorso flavo, albido nigroque alternatim fasciato; femoribus luteis; cauda nigra transversim albido lineata.

Habitat in Australasia.

WHITE-BELLIED COUCAL.

Head, neck, throat, and breast black, the scapi spotted with whitish, the feathers alternately banded with black and rufous; belly whitish; back yellow, alternately banded with black and white; thighs luteous; tail black, with transverse white lines.

Inhabits New Holland, whence it was received by Mr. Leadbeater (of Brewer-street), a most excellent preserver of birds. It is of the same size with the preceding species.

DIPSAS.

Character Genericus.

Testa fluviatilis, bivalvis, æquivalvis, transversa, impressionibus muscularibus tribus: cardo in utraque valva externé lamelliformis.

Animal ———

DIPSAS.

Generic Character.

Shell fresh-water, bivalve, æquivalve, transverse, with three muscular impressions: *hinge* in each valve with a lamelliform tooth.

Animal unknown.

The systematic situation of *Dipsas* is between the fresh-water genera *Unio* and *Anodonta*; genera most widely separated from each other in the artificial system*, the prevalence of which in Britain, is indeed to be lamented, as it not only retards the advancement of science, especially in ascertaining the natural affinity of kindred genera, but cannot even be rendered subservient to the views of the geologist, to whom alone the knowledge of shells, without a minute consideration of the animal, can in any manner be considered as interesting or useful.

* *The Linnean genus* Mya *affords an excellent example of the evil resulting from artificial arrangement: under this head we find several genera with distinct animals and shells, having no affinity with each other; some not even agreeing with the almost unlimited characters laid down, many inhabiting the sea, others fresh water, confusedly mixed together, without even any distribution into intelligible sections.*

The hinge at once distinguishes the shell of *Dipsas* from *Anodonta*, but the animal is probably the same, or is very nearly allied to it.

DIPSAS PLICATUS.

TAB. LIII.

Testa viridescente-lutea interne margaritacea iricolore, inæqualiter alata; ala majore longitudinaliter umboneque transversim plicatis.

Habitat ——

Mus. Brit.

FOLDED DIPSAS.

Shell greenish-luteous, internally pearly and irridescent, unequally winged; the larger wing longitudinally, and the umbo transversely folded.

The specimen from which the annexed figure was taken, has fourteen pearls adhering to it, and is preserved in the British Museum; it formed a part of the collection of Sir Hans Sloane; and is enumerated in the catalogue as "a Bohemian river horse-mussel, with pearls sticking to the shell."

In the Museum there are several fragments of the same species, with groups of pearls attached to them.

Drawn Engraved & published by R.P. Nodder

LUPA.

CANCER, *Linnæi.*
PORTUNUS, *Fabr.*, *Lam.*, *Latr.*, *Bosc.*
LUPA, *Leach.*

CHARACTER GENERICUS.

Antennæ externæ setaceæ, articulis duobus primis majoribus, ultimo (seu tertio) e plurimis articulis minutis efformato.

Pedipalporum geminorum externorum caulis interni articulus secundus ad internum latus subemarginatus pro palporum insertione.

Oculi magni pedunculo crassiores.

Testa margine antico sub-semielliptico-arcuato, lateribus postice in angulum convergentibus; postice truncata; latera (sæpius) 9-dentata dente postico longissimo.

Orbita postice bifissa et infra externe unifissa, canthô interno imperfecto.

Pedum par anticum majus didactylum; paria 2, 3, et 4 simplicia unguibus compressis, elongatis, longitudinaliter sulcatis instructa; par quintum compressum, foliaceum, natatorium.

Abdomen articulis 2 et 3 transversim carinatis, utrinque productis: *maris* 5-articulatum (segmentis 2, 3, et 4 sæpissime confluentibus), articulo medio longiore, articulis 4 et 5 præcedente augustioribus hôc minimo: *feminæ* 7-articulatum articulo ultimo præcedente haud abruptissime augustione.

LUPA.

Generic Character.

External antennæ setaceous, with the two first joints largest, the third composed of several minute articulations.

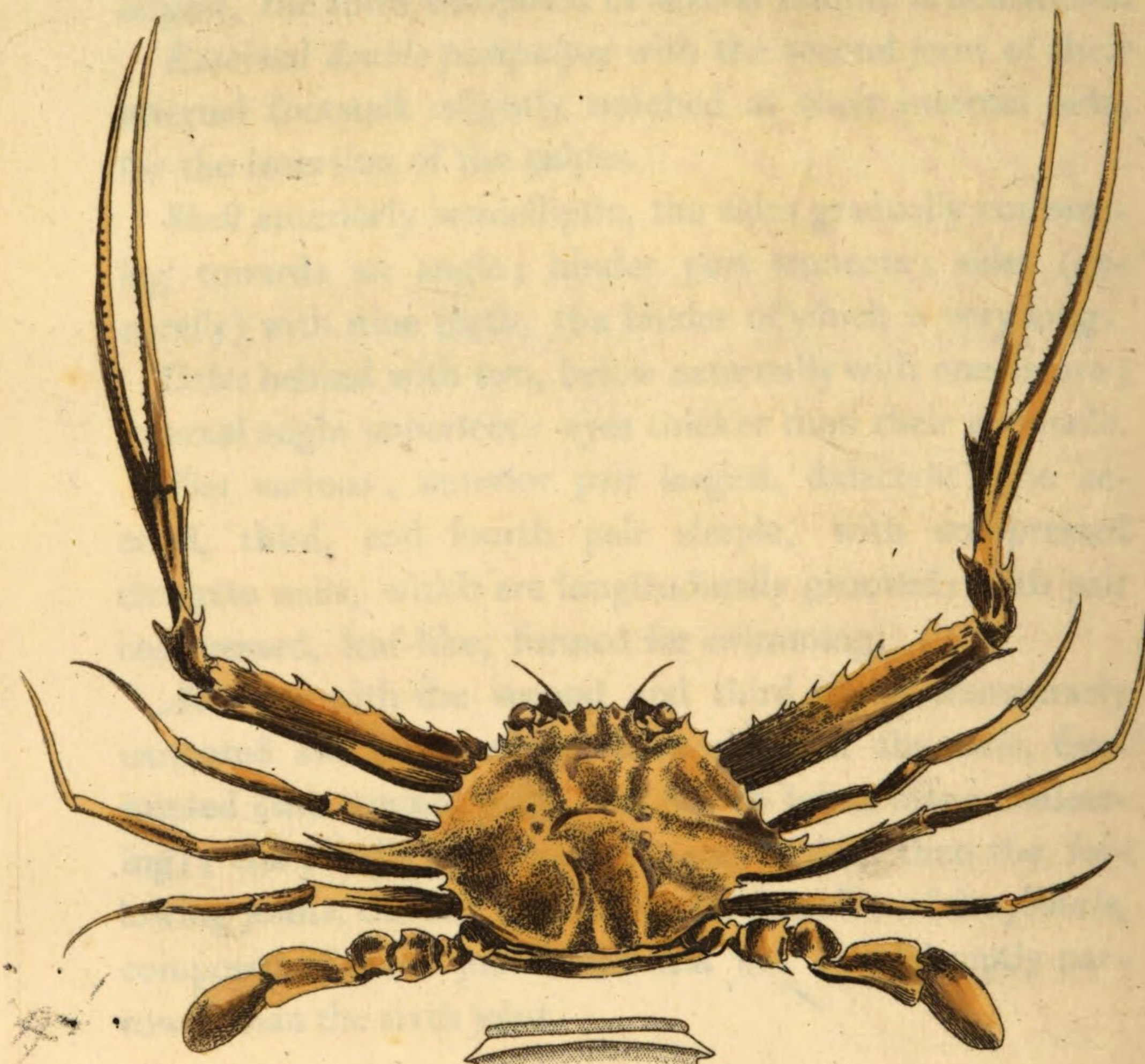
External double pedipalpes with the second joint of their internal footstalk slightly notched at their internal side, for the insertion of the palpes.

Shell anteriorly semielliptic, the sides gradually converging towards an angle; hinder part truncate; sides (generally) with nine teeth, the hinder of which is very long.

Orbit behind with two, below externally with one fissure; internal angle imperfect: eyes thicker than their peduncle.

Feet various; anterior pair largest, didactyle; the second, third, and fourth pair simple, with compressed elongate nails, which are longitudinally grooved; fifth pair compressed, leaf-like, formed for swimming.

Abdomen with the second and third joints transversely carinated and produced on each side: of the *male*, five-jointed (the second, third, and fourth joints often coalescing); the middle joint longest, and broader than the following joints, the last of which is very small: of the *female*, composed of seven joints, the last not very abruptly narrower than the sixth joint.



Drawn Engraved & Published by R.P. Bodder Tavistock St. London

LUPA FORCEPS.

TAB. LIV.

L. testa granulata; brachiis antice spinosis; carpis utrinque unispinosis; manibus supra ad basin extenèque ad apicem unispinosis, digitis longissimis, filiformibus, subreclivibus, interne denticulatis: ungue postico compressissimo, rotundato-ovato.

Cancer forceps. *Herbst.* 3, tab. 55, fig. 4.

Portunus forceps. *Fab. Sup. Ent. Syst.* 368.

Bosc. Hist. Nat. des. Crust. 1. 220.

Habitat in Carribeo Mari.

SLENDER-FINGERED LUPA.

Shell granulated; arms anteriorly spiny; wrists on each side with one spine; hands at their upper base and internal apex one-spined; fingers very long, filiform, slightly bending upwards, internally denticulated; hinder nail very much compressed, round-ovate.

This very remarkable species of Lupa inhabits the Caribean sea, where it often occurs on various kinds of floating tangle.

Dr. P. Browne has given a good figure of this animal in tab. 42, fig. 2, of his History of Jamaica, from which island the specimen here figured, was received.

HESPERIA.

PAPILIO, *Linn., Gmel.*
HESPERIA, *Cuvier, Lamarck, Walckanaer, Latreille.*

CHARACTER GENERICUS.

Antennæ clavatæ, ad apicem acuminatæ abrupte uncinatæ.

Palpi hirsutissimi, articulo ultimo nudo, subconico.

Caput trunco latius aut illius latitudine. Antennæ ad basin inter se valde dissitæ. Tibiæ anticæ calce unico in fossula apicem versus recepto; posticæ calcibus quatuor per paria insertæ, interioribus longioribus.

SKIPPER.

GENERIC CHARACTER.

Antennæ clavate, with their points acuminate and abruptly hooked.

Palpes very hairy, with the last joint naked and somewhat conic.

Head broader, or as broad as the thorax. Antennæ inserted widely apart from each other. Anterior shank with a single spur, situated in a fossula towards the apex. Hinder shanks with four spurs placed in pairs, the interior ones longest.

HESPERIA ORNATA.

TAB. LV. Fig. 1, 2, & 3.

H. alis anticis fuscis supra maculis (maris 3, fœminæ 5) flavescentibus, subtus maculis apiceque albidis; posticis nigricantibus fascia transversa ciliisque croceis, subtus albidis nigro maculatis.

Habitat in Australasia vulgatissime.

ADORNED SKIPPER.

Anterior wings fuscous above, with yellowish spots (three in the male, five in the female), below, with whitish spots and tips; hinder wings blackish, with a transverse band and fringe saffron-coloured, below whitish with black spots.

Hesperia Ornata is common in New Holland. Fig. 1, represents the male; 2, the female; and 3, the underside, which in both sexes is nearly the same.

HESPERIA PICTA.

FIG. 4, & 5.

H. alis anticis fuscis flavido maculatis; posticis nigricantibus fascia transversa ciliisque croceis, subtus rufo brunneis fascia transversa, ciliis pterigostiisque albidis.

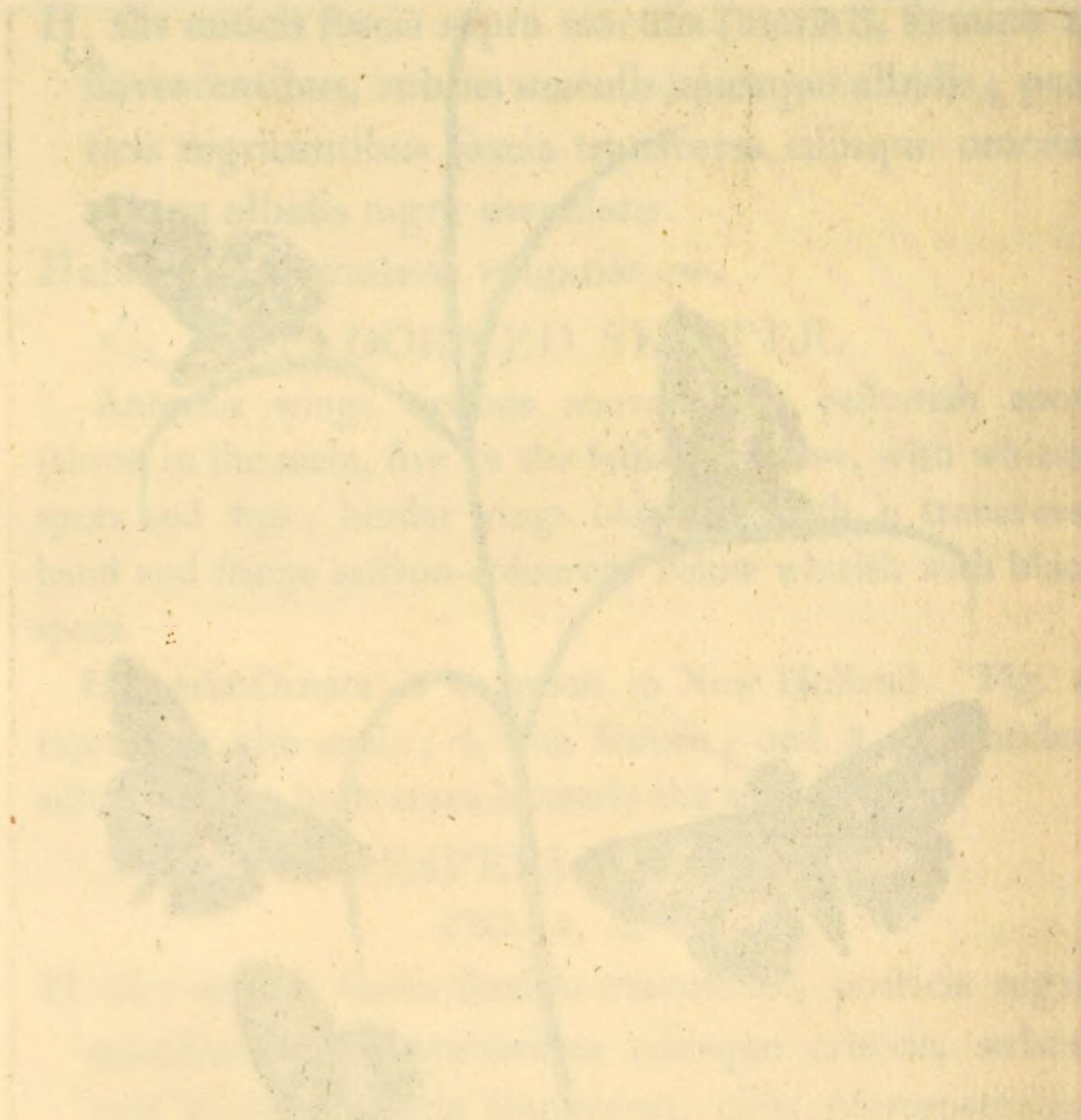
Habitat in Australasia.

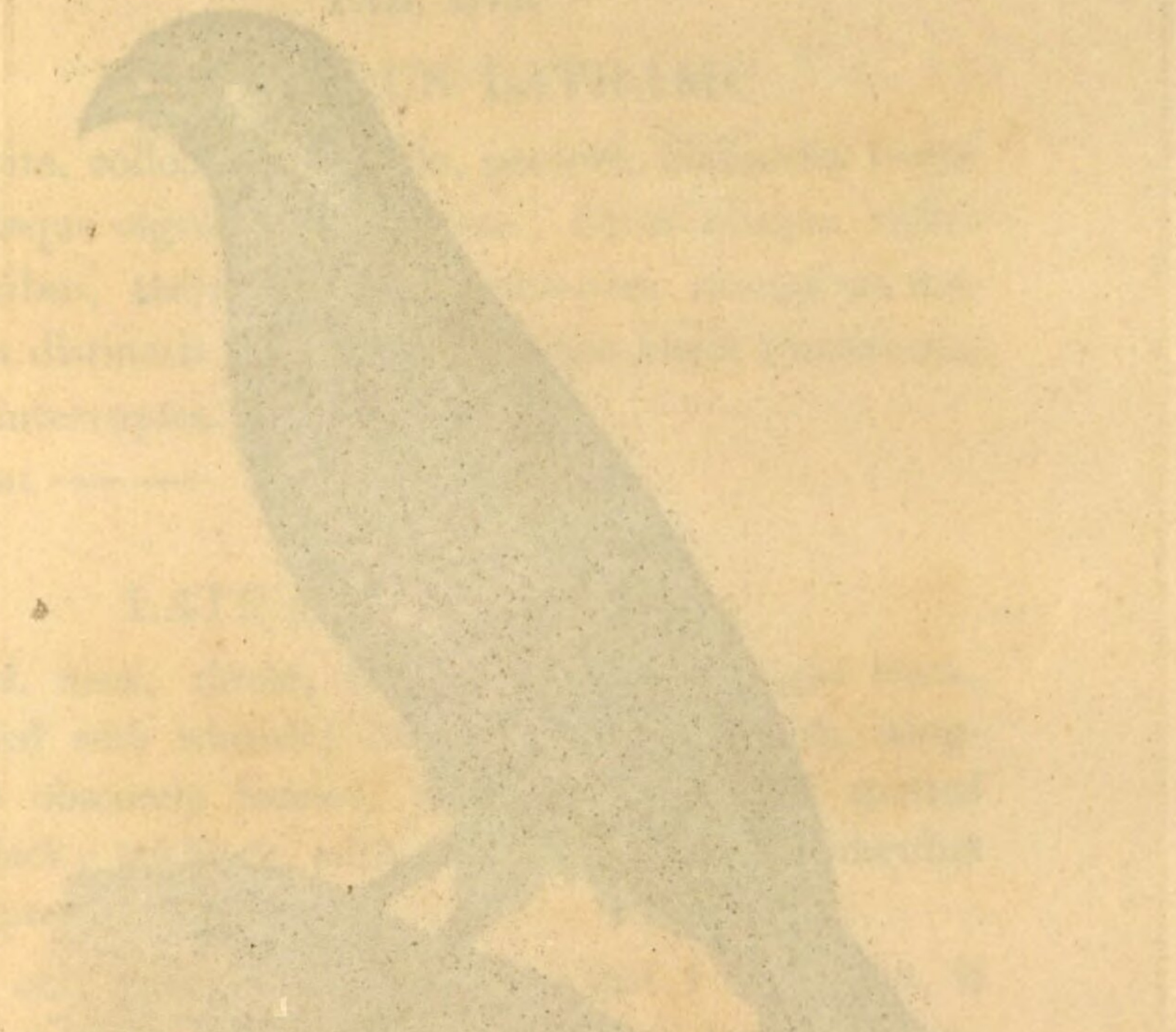
PAINTED SKIPPER.

Anterior wings fuscous, spotted with yellowish; hinder ones blackish with a transverse band, fringe and ciliæ saffron-coloured, beneath light chocolate-brown with a transverse band, fringe and wing-bones whitish.

This species likewise inhabits New Holland, but is less common. Fig. 4, upperside of the female: 5, under side. The male I have not seen.

Drawn Engraved & Published by R.P. Nodder Tavistock St. London.





Drawn Engraved & Published by R. Nodder.

POLOPHILUS.

Character, page 115.

TAB. LVI.

POLOPHILUS LATHAMI.

P. capite, collo, gula, jugulo, pectore, abdomine femoribusque nigris albido-sparsis; dorso alisque rufescentibus, tectricibus fasciis obscuris, remigibus maculis distinctis nigris; cauda nigra lineis transversis, subinterruptis, albidis.

Habitat ——

LATHAMIAN COUCAL.

Head, neck, throat, breast, belly, and thighs black, sprinkled with whitish; back and wings reddish, wing-coverts obscurely banded, wing-quills distinctly spotted with black; tail black, with narrow, transverse, somewhat interrupted, whitish bands.

The only specimen of this species that I have seen, is preserved in the British Museum; but its locality is unknown. It is named after our celebrated ornithologist, Dr. Latham, whose labours justly entitle him to this mark of distinction.

POLOPHILUS.

Character, page 115.

PINNA.

Pinna *Auctorum.*

Character Genericus.

Testa bivalvis elongata, cuneiformis, ad basin attenuata, antice hians, interne impressione unica, muscolari, subcentrali: *cardo* inermis; *ligamentum* longissimum, laterale.

Animal acephalum, byssoferum; bysso sericeo.

PINNA.

Generic Character.

Shell bivalve, elongate, wedge-shaped, with the base attenuated, anteriorly gaping, internally with one nearly central muscular impression; *hinge* without teeth; *ligament* lateral and very long.

Animal acephalous, furnished with a silky beard.

The animals of this genus, named in Britain *macres*, *sea-wings*, or *pinnæ marinæ*, were celebrated among the ancients for the fine cloth manufactured from their beards, and on account of a little crab that was often observed to inhabit their shells. This crab, named *pinnotheres*, was supposed to guard the pinna from the attacks of its enemies, or to warn it of the entrance of little fishes within its gaping shells, by gently biting its side, on which the animal was believed to close its shells, and to secure their mutual booty. No satisfactory reason has been assigned for the

habitation of the Pinnotheres *. The byssus of *pinna squamosa* is often manufactured into gloves at Palermo and Naples.

Pinnæ seem to be subject to very considerable variety, both in form and sculpture, even in the different stages of growth, which causes the species to be but little understood.

TAB. LVII.

PINNA SACCATA.

P. testa saccata lævi (antice saltem) costata, externe subabrupte producta subdistorta.

P. alba. *Rumph. Amboin.* t. 46, f. N.

P. saccata. *Linn. Syst. Nat.* xii. 1160, 268.
Gmel. Syst. Nat.

Habitat in oceano Indico.

BAG PINNA.

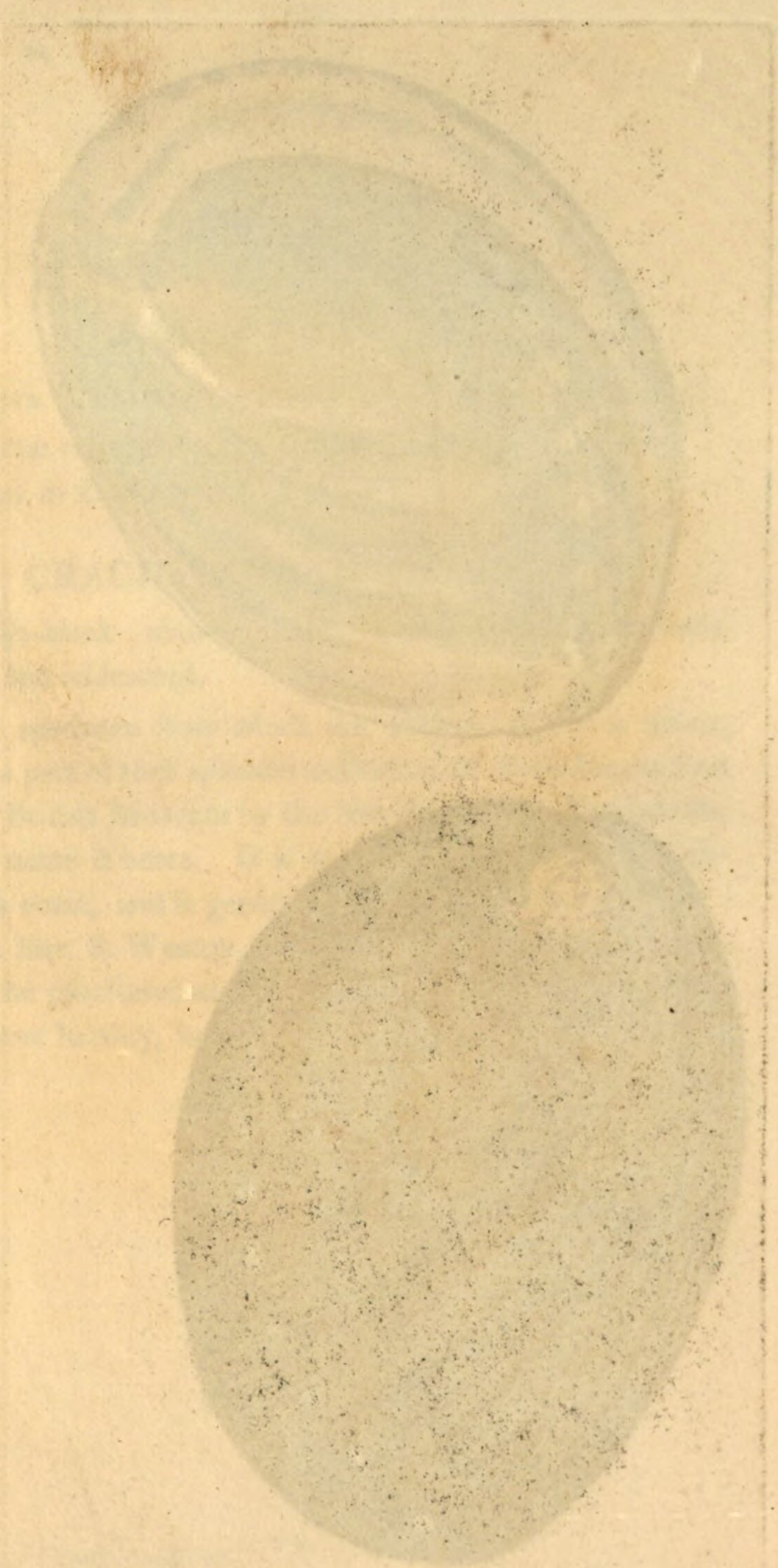
Shell smooth, bag-shaped (anteriorly at least), ribbed, externally abruptly produced, somewhat distorted.

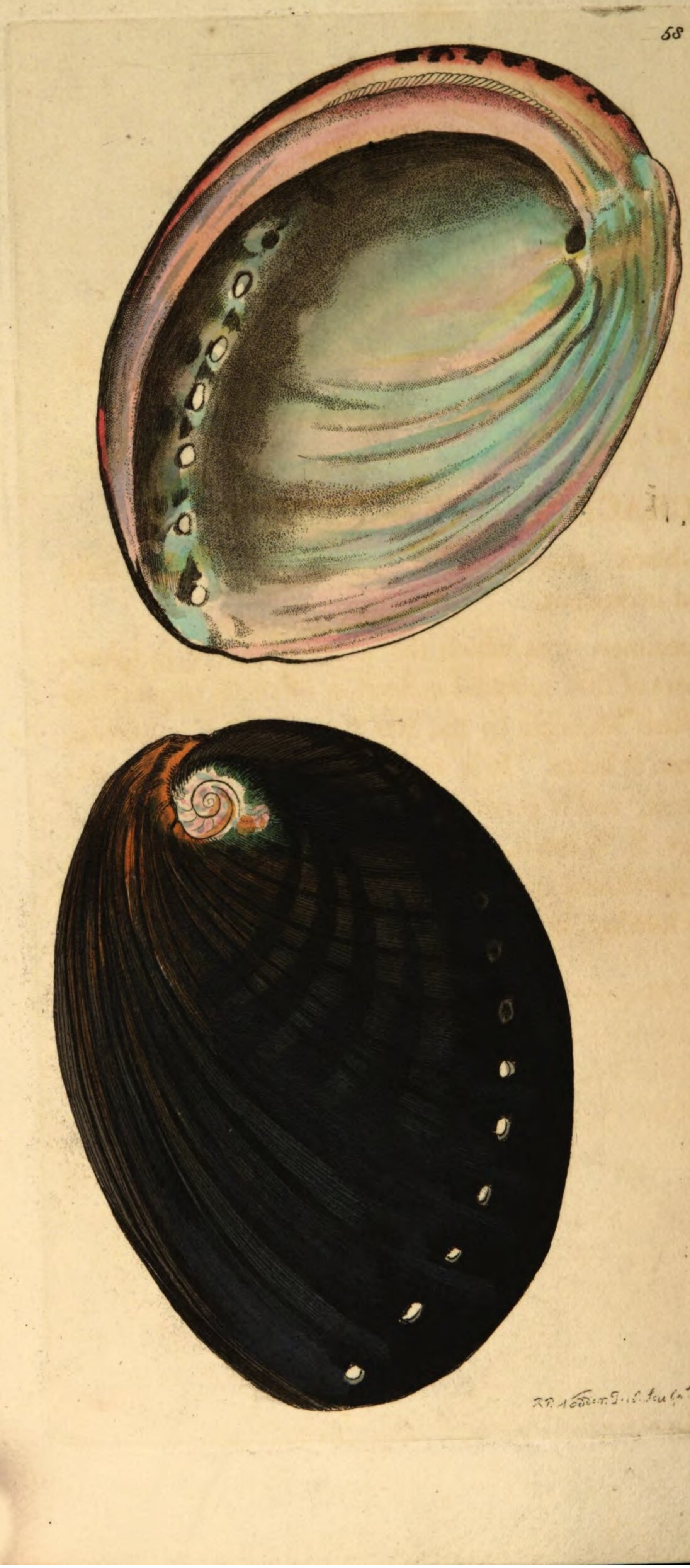
This rare pinna is readily distinguished from all other species by its distorted irregular form. Some specimens are ribbed from the base to the point, others only anteriorly.

Inhabits the Indian seas, and is esteemed a very rare species.

* *For an account of the* Pinnotheres, *of which genus many species are known, see Leach's Malacostraca podophthalmata Britanniæ, No. I.*

Drawn Engraved & Published by R. P. Nodder Tavistock St. London.





HALIOTIS.

Character, page 53.

TAB. LVIII.

HALIOTIS CRACHERODII.

H. supra cærulescente-niger, umbone laterali-dorsali; interne margaritaceus iricolor.

Habitat in California.

CRACHERODIAN EARSHELL.

Bluish-black above, umbo lateral-dorsal; internally pearly and iridescent.

The specimen from which the annexed figure is taken, forms a part of that splendid collection of shells bequeathed to the British Museum by the late Rev. C. M. Cracherode, whose name it bears. It is said to be a native of the Californian coast, and is generally esteemed a rare species.

The Rev. S. Weston, possesses a specimen of this shell, which he purchased as a production of the Greenland sea; the above locality, however, is most probably correct.

HALIOTIS

Characters generic.

TAB. LVIII.

HALIOTIS CRACHERODII.

H. supra (cerulescente-)ciger, umbonis lateralibus; subtus margaritaceus tricolor.

Habitat in California.

Blueish-black above, umbo lateral-dorsal; internally pearly and iridescent.

The specimen from which the annexed figure is taken, forms a part of that splendid collection of shells bequeathed to the British Museum by the late Rev. C. M. Cracherode, whose name it bears. It is said to be a native of the California coast, and is generally considered a rare species.

The Rev. S. Weston, possessed a specimen of this shell, which he purchased as a production of the Greenland seas; the above locality, however, is most probably correct.

CARYOPHYLLIA.

MADREPORA, *Linn., Ellis.*
CARYOPHYLLIA, *De Lamarck, Fleming.*

CHARACTER GENERICUS.

Corallium inverso-conicum, sub-infundibuliforme, lapideum, (sæpius simplex) basi affixum: *corona* lamellis duplici serie dispositis, exterioribus majoribus.

"ANIMAL tentaculis plurimis carneis, teretibus, simplicibus, integris." *Dom. T. Smith.*

CARYOPHYLLIA.

GENERIC CHARACTER.

Coral inverse-conic, somewhat infundibuliform, stony (generally simple), attached by its base: *crown* with lamellæ disposed in a double series, the outer ones largest.

ANIMAL with many round, simple, entire, fleshy tentacules.

For the discovery of the animal of this genus of corals, we are indebted to the attentive researches of Thomas Smith, Esq. F. L. S. of Paper-buildings, Temple, who observed an indigenous species of *Caryophyllia* on the southern coast of Devonshire, adhering to a rock in a pool of water.

The corals of this genus generally form single stalks, and are rarely found attached to each other.

TAB. LIX.

CARYOPHYLLIA CYATHUS.

C. lamellis integris, marginibus obscure undulatis ; exterioribus regulariter inæqualibus, interioribus æqualibus; disco prominulo fimbriato-undulato, ruguloso.

Madrepora Cyathus. *Ellis Hist. Nat. Zooph.* p. 150.
Gmelin. Syst. Nat. 3757.

Caryophyllia Cyathus. *Lamarck Syst. des Anim. sans Verteb.* 570.

Habitat in Mediterraneo mari.

CUP CARYOPHYLLIA.

Lamellæ entire, margins obscurely undulating; exterior lamellæ regularly unequal, interior ones equal; centre prominent, with an undulating, roughish fringe.

This species is subject to some variety in form: the outer series of lamellæ generally consists of alternate larger and smaller lamellæ, but in some specimens the larger lamellæ regularly and alternately vary in size.

It is very common in the Mediterranean sea, and is most frequently found adhering to red coral (*Isis nobilis*).

Drawn Engraved & Published by R.T. Nodder. Tavistock St. London.

LYCÆNA.

LYCÆNA, *Fabr., Leach.*
POLYOMMATUS, *Latr.*
PAPILIO, *Linn.*

CHARACTER GENERICUS.

Antennæ capitulo abrupto, subovato.
Palpi prominuli, triarticulati, subconici, articulis secundo longiore, tertio cylindrico-conico, subnudo.
Pedes in utroque sexu sex ambulatorii; *tarsi* unguibus minutis instructi excipientes, integræ in his, caudatæ aut dentatæ in illis; *tibiæ* posticæ calcibus duobus instructæ.
Alæ erectæ; *posticæ* abdomen in canali.
LARVA ovalis. PUPA brevis, utrinque obtusa.

ARGUSFLY.

GENERIC CHARACTER.

Antennæ with an abrupt, somewhat ovate club.

Palpi prominent, triarticulated, somewhat conic, the second joint largest, the third somewhat naked.

Feet in both sexes six, formed for walking; *tarsi* with minute nails; hinder *tibiæ* with two spurs.

Wings erect; hinder ones receiving the abdomen in a channel; entire in some, tailed or notched in others.

The flight of the *Lycænæ* is very rapid. The European species inhabit the borders of the woods, fields, and heaths, and the sexes generally differ from each other in colour.

The antennæ of all the species that I have examined, were black annulated with white.

TAB. LX.

LYCÆNA IGNITA.

L. alis supra nigris, disco purpurescente nitido; subtus cinereo-brunneis, maculis igneo-rubris cæruleo-argenteo-marginatis, anticis costa basilari fulva.

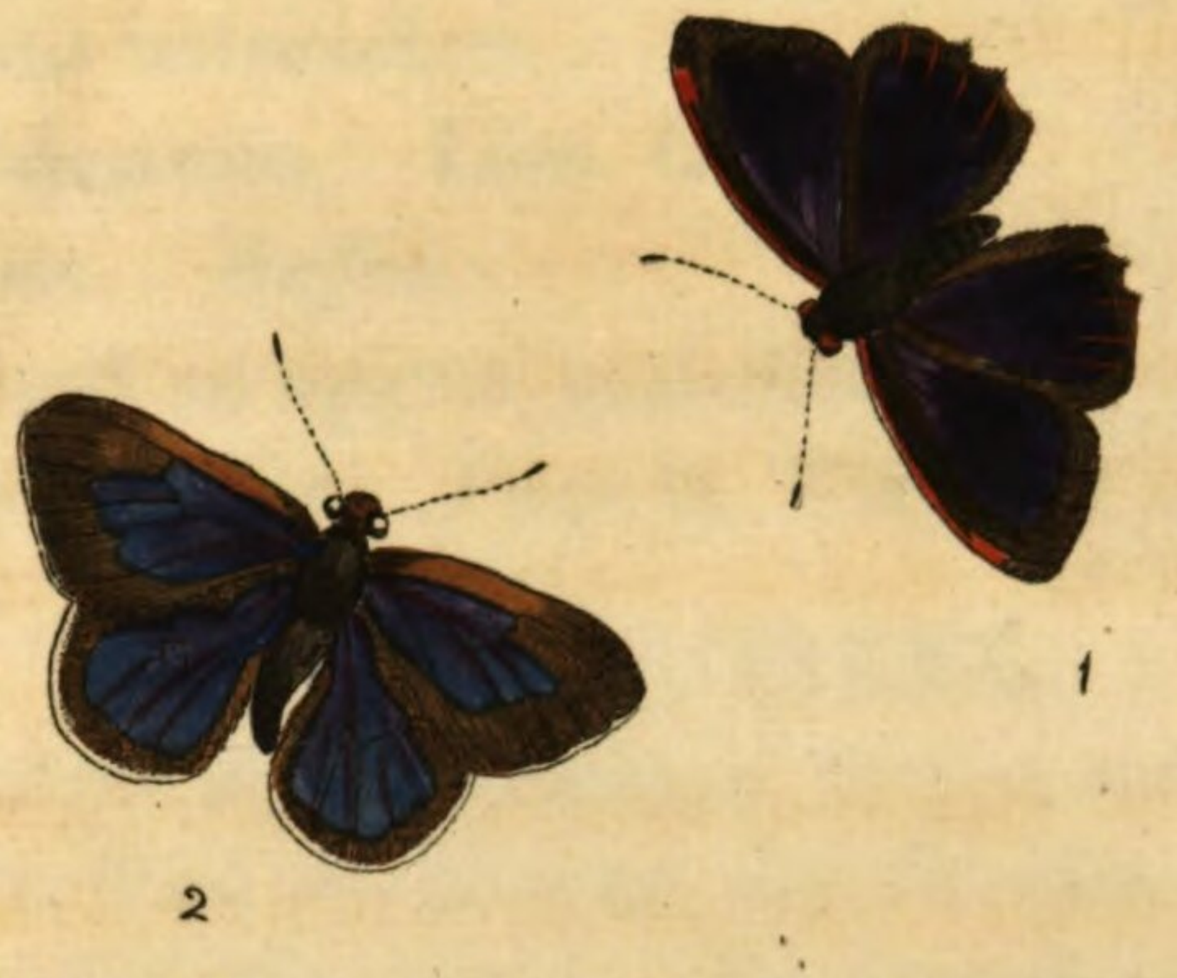
Habitat in Australasia.

FIERY ARGUSFLY.

Wings black above with a shining purple disc, cinereous-brown beneath with fire-red spots bordered with silvery-blue, anterior ones with the base of the costal margin fulvous.

This splendid species of *Lycæna* inhabits New Holland. The anterior wings of the male have a much broader margin of black than those of the female. The rays of the internal wing-bone of the hinder wings are generally fulvous, but are sometimes found black.

Fig. 1. Female.
2. Male.
3. Underside, which in both sexes is the same.



1

2

3

Drawn Engraved & Published by R.P. Nodder. Tavistock, St. London.

ADDENDA ET CORRIGENDA.

SCIURUS PALMARUM.

S. pilis fulvo fuscoque mistis; dorso lineis tribus lateralibus pallidis, gula ventreque albidis, auribus subrotundatis imberbibus.

Sciurus Palmarum. *Linn. Gmel.*

Le Palmiste. *Buffon.*

Var. β. caudâ ad apicem penicillatâ.

Sciurus penicillatus. *Page* 6, *Tab. I.*

PALM SQUIRREL.

Body covered with a mixture of fulvous and brown hair, having three lines on the back and the sides pale yellowish: throat and belly whitish; ears somewhat rounded, not tufted.

Var. β. Tail with the apex pencilled.

Pencil-tailed Squirrel, page 6, Table I.

Pag. 27, lin. 5, adde, SATYRUS, *Latr.*

57, — 2, pro PICTUS lege STOLLII.

91, — 12, adde, MICTIS.

100, inter lineas 8 & 9, adde, cancer bipes. *Oth. Fabr. Fr. Græn. No. 223, f. 2.*

100, lin. 16, post adde, "by Otho Fabricius, and afterwards by."

109, pro LITHOSIA DISPAR lege LITHOSIA REPLANA.

110, inter lin. 2 et 3, adde, Lithosia replana. *Lewin Nat. Hist. Lepins. of New South Wales, p.* 16, *Tab.* 15.

110, lin. 10, pro *dispar* lege *replana*.

ADDENDA ET CORRIGENDA.

SCIURUS PALMARUM.

S. pilis fulvo fuscoque mistis; dorso lineis tribus latioribus pallidis, pilis ventreque albidis, auribus subrotundatis lanuginosis.

Sciurus Palmarum. Linn. Gmel.

Le Palmiste. Buffon.

Var. β. cauda ad apicem penicillata.

Sciurus penicillatus. Page 6. Tab. 1.

PALM SQUIRREL.

Body covered with a mixture of fulvous and brown hair, having three lines on the back and the sides pale yellowish: throat and belly whitish; ears somewhat rounded, not tufted.

Var. β. Tail with the apex pencilled.

Pencil-tailed Squirrel, page 6, Table I.

Page 27, line 5, add, SAXUM, Lam.

37, — 2, for PICTUS read STOLLII.

91, — 12, add, Myrtis.

100, inter lineas 8 & 9, adde, canoy lupes. ORN. Pale. Fr. Syst. No. 223, 7. 8.

100, line 16, post adde, "by Otho Fabricius, and afterwards by"

105, for LITHOSIA DISPAR lege LITHOSIA ELEPLANA.

106, inter lin. 2 et 3, adde, Lithosia replana. Linn. Mus. Frid. 2. 34. & Mus. S. Ulr. 16. Tab. 15.

110, line 16, for dispar lege replana.

INDEX SYSTEMATICUS.

	Pag.	Tab.
Typus I. VERTEBROSA.		
Classis Mammalia.		
Sciurus, *character genericus*	5	—
—— Palmarum	6	1
Id.....	137	—
Arvicola, *gen. charact.*.....	59	—
—— Xanthognatha ..	60	26
Classis Aves.		
Lanius, *char. gen.*	19	—
—— lineatus	20	6
—— doliatus	39	16
—— nævius	40	17
—— obscurus	49	—
Oriolus, *char. gen.*	7	—
—— mexicanus	8	2
—— xanthornus	9	—
Amblyramphus, *char. gen.*	81	—
—— bicolor ..	82	36
Pipra, *char. gen.*	93	—
—— Desmaretii	94	41
Certhia, *char. gen.*	29	—
—— Australasiæ	30	11
Cuculus, *char. gen.*	71	—
—— afer	72	31
Polophilus, *char. gen.*	115	—
—— phasianus	116	46
—— variegatus	116	—
—— leucogaster	117	—
—— Lathami	127	56
Classis Reptilia.		
Acanthophis, *char. gen.* ..	11	—
—— Brownii	12	3
Classis Pisces.		
Xiphias, *char. gen.*	61	—
—— Rondeletii	62	27
Hippocampus, *char. gen.*..	103	—
—— trimaculatus	104	—
—— Antiquorum	104	—
—— ramulosus ..	105	47
Typus II. MOLLUSCA.		
Classis Gasteropoda.		
Voluta, *char. gen.*	23	—
—— subnodosa	24	8
—— Zebra	31	12
—— lineata	31	12
Strombus, *char. gen.*	51	—
—— Sloanii	52	22
Haliotis, *char. gen.*	53	—
—— ruber	54	—
—— Cracherodii	131	58
Padollus, *char. gen.*	65	—
—— scalaris	66	28
Auricula, *char. gen.*	73	—
—— midæ	74	32
Scarabus, *char. gen.*	95	—
—— imbrium	96	42
Carychium, *char. gen.*....	83	—
—— undatum	84	37
—— minimum	84	—
Bulimus, *char. gen.*	67	—
—— hæmastomus	68	29
Bulimulus, *char. gen.*	41	—
—— acutus	41	18
—— trifasciatus	42	18
Classis Acephala.		
Tenebratula, *char. gen.* ..	75	—
—— sanguinea ..	76	33
Pinna, *char. gen.*	129	—
—— saccata	130	57
Margarita, *char. gen.*	107	—
—— Sinensis	108	48

	Pag.	Tab.
Avicula, *char. gen.*	85	—
—— radiata	98	43
—— Chinensis	86	38
—— morio	86	38
Dipsas, *char. gen.*	119	—
—— plicatus	120	53
Solen, *char. gen.*	21	—
—— Ceylonensis	22	7
Typus III. ANNULOSA.		
Classis Crustacea.		
Lupa, *char. gen.*	121	—
—— forceps	123	54
Nebalia, *char. gen.*	99	—
—— Herbstii	100	44
Classis Arachnides.		
Ammothea, *char. gen.*	33	—
—— Carolinensis	34	13
Nymphum, *char. gen.*	43	—
—— femoratum	45	19
—— gracile	45	19
Classis Insecta.		
Lamia, *char. gen.*	13	—
—— picta	14	4
Mantis, *char. gen.*	77	—
—— Australasiæ	78	34
Phasma, *char. gen.*	25	—
—— Violascens	26	9
Gryllus, *char. gen.*	55	—
—— Australasiæ	56	24
—— Stollii	57	25
Tettigonia, *char. gen.*	87	—
—— Marginata	89	39
Tettigonia Harrisii	89	39
Scutellera, *char. gen.*	35	—
—— sexmaculata	36	14
Mictis, *char. gen.*	91	—
—— crucifera	92	40
Papilio, *char. gen.*	15	—
—— Macleayanus	17	5
Hipparchia, *char. gen.*	27	—
—— Banksii	28	10
Lycæna, *char. gen.*	135	—
—— ignita	136	60
Hesperia, *char. gen.*	125	—
—— picta	126	55
—— ornata	126	55
Agarista, *char. gen.*	37	—
—— picta	38	15
Lithosia, *char. gen.*	—	—
—— replana	109	49
—— complana	110	49
Ourapteryx, *char. gen.*	79	—
—— politata	80	35
—— sambucaria	80	35
Ascalaphus, *char. gen.*	47	—
—— flavipes	48	20
Myrmeleon, *char. gen.*	69	—
—— erythrocephalum	70	30
Nymphes, *char. gen.*	101	—
—— Myrmyleonoides	102	45
Vespa, *char. gen.*	111	—
—— Britannica	112	50
Typus. ZOOPHYTA.		
Classis Polypa.		
Caryophyllia, *char. gen.*	133	—
—— cyathus	134	59

GENERAL INDEX,

IN

LATIN AND ENGLISH.

	Pag.	Tab.
Acanthophis, *Daudin*	11	—
——— Brownii	12	3
——— Brown's	12	3
Acrydium, *Latr.*	55	—
Agarista	37	—
——— picta	38	15
——— painted	38	15
Amblyramphus	81	—
——— bicolor ..	82	36
——— bicolored ..	82	36
Ammothea	33	—
——— Carolina	34	13
——— Carolinensis ..	34	13
Anodonta	119	—
Anomia, *Linn.*	75	—
Argusfly	135	—
——— fiery	136	60
Arvicola, *Dum.*	59	—
——— agrestis	60	—
——— Xanthognatha ..	60	26
Ascalaphus, *Fabr.*	47	—
——— flavipes	48	20
——— yellow-legged	48	20
Auricula, *Sebæ*	73	—
——— Midæ, *De Lam.*	74	32
Auriculus, *De Mont.*	73	—
Auris Midæ, *Klein*	74	32
Avicula	85	—
——— black	86	38
——— Chinese	86	38
——— Chinensis	86	38
——— morio	86	38
——— radiata	98	43
——— radiated	98	43

	Pag.	Tab.
Boa ambigua, *Brown's MSS.*	12	3
Bucherbird, black and white, *Edw.*	39	16
Bulimulus	41	—
——— acute	41	18
——— acutus	41	18
——— three banded ..	42	18
——— trifasciatus	42	18
Bulimus, *Bruguiere*	73	—
Bulimus, *De Lam.*	67	—
——— hæmastomus, *De Lam.*	68	29
——— oblongus, *Brug.*	68	29
——— roseus, *De Mont.*	68	29
Bulla Pseudo Auris Midæ, *Martini*	68	29
Butterfly	15	—
——— Macleay's	17	5
Campagnol	59	—
——— fulvous-cheeked	60	26
Cancer bipes, *O. Fabr.* ..	100	44
——— forceps, *Herbst* ..	123	54
Carychium, *Müller*	83	—
——— least	84	—
——— minimum, *Müll.*	84	—
——— undulated	84	—
——— undulatum	84	37
Caryophyllia, *De Lam.*	133	37
——— cup	134	59
——— cyathus, *De Lam.*	134	59
Cerambyx, *Linn.*	13	—
Certhia, *Linn.*	29	—
——— Australasiæ	30	11
Chanteuses	88	—

	Pag.	Tab.
Cheval marin	105	—
Cicada	87	—
Cimex, *Linn.*	35	—
Cochlea imbrium, *Rumph.*	96	42
Concha margaritifera	107	—
Coucou edolio variétié, *Le Vail.*	72	31
Coucal, *Le Vail.*	115	—
—— Lathamian	127	56
—— pheasant	116	46
—— variegated	117	51
—— white-bellied	117	52
Creeper	29	—
—— New Holland	30	11
Cuckow	71	—
—— African	72	31
—— pheasant, *Lath.*	16	46
Cuculus	71	—
—— afer	72	31
—— phasianus, *Lath.*	116	46
Cul-jaune petit de Cayenne, *Buff.*	9	—
Dipsas	119	—
—- plicatus	120	53
—- folded	120	53
Earshell	53	—
—— red	54	23
—— Cracherodian	131	53
Formicaleo, *Geoffroy*	69	—
Gladius, *Plin.*	61	—
Gryllus, *Fabr.*	55	—
—— Australasiæ	56	24
—— Stollii	57	25
Haliotis Cracherodii	131	58
—— ruber	54	23
Helix acuta, *Müller*	41	18
—— carychium, *Gmel.*	84	—
—— Scarabæus, *Linn.*	96	42
Hemerobius	102	—
Hesperia, *Latr.*	125	—
—— ornata	126	55
—— picta	126	55
Hipparchia, *Fabr.*	27	—
—— Banksian	28	10
Hipparchia Banksii	28	10
Hippocampus, *Plin.*	103	—
—— Antiquorum	104	—
—— common	105	—
—— ramulosus	105	47
—— three-spotted	104	—
—— trimaculatus	104	—
—— twig-bearing	105	—
Horse, sea	105	—
Humming-bird	29	—
Lamia	13	—
—— painted	14	4
—— picta	14	4
Lanius	19	—
—— Cayennensis striatus, *Briss.*	39	16
—— doliatus, *Linn.*	39	16
—— lineatus	20	6
—— nævius, *Gmel.*	40	17
—— obscurus, *Gmel.*	49	21
Leaf, walking	77	—
Lebia linearis	113	—
Libelluloides, *Schæffer*	47	—
Lithosia, *Fabr.*	109	—
—— common	110	49
—— complana, *Fabr.*	110	49
—— replana, *Lewin*	109	49
—— unequal	110	49
Locust	55	—
—— Australasian	56	24
—— painted	57	25
—— Stoll's	57	25
Lupa, *Leach*	121	—
—— forceps	123	54
—— slender-fingered	123	54
Lycæna, *Fabr.*	135	—
—— ignita	136	60
Macre	129	—
Madrepora cyathus, *Ellis*	134	59
Manacus, *Brisson*	93	—
Manakin	93	—
—— Desmaretian	91	41
Maniola, *Schrank*	27	—
Mantis, *Latr.*	77	—
—— Australasiæ	78	34
—— bispinosa, *Shaw*	25	—
—— gigas, *Shaw*	25	—

	Pag.	Tab.
Margarita	107	—
—— Sinensis	108	48
Matrix perlarum	107	—
Mictis	91	—
—— crucifera	92	40
—— cross bearing	92	40
Monoculus rostratus, *Montagu*	108	44
Moth, swallow-tail	80	35
Mya	119	—
Myrmyleon, *Linn.*	47	—
Myrmyleon, *Fabr.*	69	—
—— erythrocephalum	70	30
—— red-headed	70	30
Mytilus, *Linn.*	85	—
Nebalia	99	—
—— Herbstii	100	44
—— Herbstian	100	44
Nymphalis, *Latr.*	27	—
Nymphes	101	—
—— antlion	102	45
—— Myrmyleonoides	102	45
Nymphon, *Fabr.*	43	—
Nymphum, *De Lam.*	43	—
—— femoratum	45	19
—— gracile	45	19
—— slender	45	19
—— thick-thighed	45	19
Oreille de Midas fausse	67	—
—— de Cayenne	68	29
Oriole	7	—
—— white shouldered Banana	8	2
—— black shouldered Banana	10	—
—— lesser Banana, *Lath.*	9	—
—— var. *Lath.?*	8	2
Oriolus	7	—
—— mexicanus, *Linn.*	8	2
—— xanthornus, *Shaw*	9	—
Osmylus	102	—
Ourapteryx	79	—
—— Elder	80	35
—— polished	80	35
Ourapteryx politata	80	35
—— sambucaria	80	35
Padollus, *De Mont.*	65	—
—— staircase	66	28
—— scalaris	66	28
Palmist, *Buffon,*	6	—
Ibid	137	—
Papilio, *Fabr.*	15	—
—— Agamemnon, *Fabr.*	17	—
—— Machaon, *Linn.*	16	—
—— Macleayanus	17	5
—— Nereus, *Linn.*	17	—
—— Podalirius, *Linn.*	16	—
—— Saperdon, *Fabr.*	17	—
Parus	93	—
Pearlshell	107	—
—— Chinese	108	48
Phalæna complana, *Linn.*	110	—
—— Sambucaria, *Linn.*	80	35
Phalangium Grossipes, *Linn.*	45	—
—— marinum, *Strom.*	45	—
Phasma, *Latr.*	25	—
—— violascens	26	9
—— violet-winged	26	9
—— rosea, *Fabr.*	26	—
Pterigostia	27	—
Pie-griesche rayée de Cayenne, *Buff.*	39	—
Pinna	129	—
—— saccata	130	57
—— marina	129	—
Pipra, *Linn.*	93	—
—— Desmaretii	94	41
Polophilus	115	—
—— Lathami	127	56
—— leucogaster	117	52
—— phasianus	116	46
—— variegatus	116	51
Polyommatus, *Latr.*	135	—
Portunus forceps, *Herbst.*	123	—
Pycnogonum, *Müller*	43	—
Razor-grinder	90	—
Razor-shell	21	—
—— Ceylon	22	7
Saperda	13	—

	Pag.	Tab.
Satyrus, *Latr.*	27	—
Scarabus, *De Montford*	95	—
—— imbrial	96	42
—— imbrium, *De Mont.*	96	42
Sciurus	5	—
—— Palmarum	107	1
Scutellera, *Lam.*	35	1
—— sexmaculata	36	14
Shieldbug	35	—
—— six-spotted	36	14
Shrike	19	—
—— dusky, *Lath.*	49	21
—— lineated	20	6
—— pied, *Lath.*	39	16
spotted, *Lath.*	40	17
Skipper	125	—
—— adorned	126	55
—— painted	126	55
Solen, *Linn.*	21	—
—— Ceylonensis	22	7
Spectrum, *Stoll.*	25	—
Squirrel	5	—
—— Palm	107	1
Strombus, *De Lam.*	51	—
—— Sloanii	52	22
—— Sloane's	52	22
Sword-fish	61	—
—— common	63	—
—— Rondeletian	62	27
Syngnathus, *Linn.*	103	—
—— foliatus, *Shaw*	104	—
Syngnathus, hippocampus, *Linn.*	104	—
Terebratula, *De Lam.*	75	—
—— blood-red	76	33
—— cranium ?	76	—
—— sanguinea	76	33
Tettigonia, *Fabr.*	87	—
—— Harrisian	89	39
—— Harrisii	89	39
—— marginata	89	39
—— margined	89	39
Tetyra, *Fabr.*	35	—
Trigonocephalus, *Oppel?*	11	—
Trochilus	29	—
Turbo carychium, *Montagu*	84	—
Unio	119	—
Vespa, *Latr.*	111	—
—— Britannica	112	50
Voluta, *De Lam.*	23	—
—— auris Midæ, *Linn.*	74	32
—— lineata	31	12
—— subnodosa	24	8
—— zebra	31	12
Volute lineated	31	12
—— slightly-knotted	24	8
—— zebra	31	12
Wasp	111	—
—— British	112	50
Wing sea	129	—

END OF VOL. I.

On the 1st of January, 1815, was published,

By JAMES SOWERBY, No. 2, Mead-Place, Lambeth,

In Royal Quarto, Price 7*s.* 6*d.* coloured; 6*s.* plain,

No. I. OF

Malacostraca Podophthalmata Britanniæ,

Described by W. E. LEACH, M.D. &c. &c.

Illustrated by highly-finished Figures,

BY JAMES SOWERBY, F.L.S. &c. &c.

London: Printed by B. M'Millan,
Bow Street, Covent Garden.

Bayerische Staatsbibliothek München

(60)

Schinn

BSB Bayerische StaatsBibliothek

MDZ Münchener DigitalisierungsZentrum Digitale Bibliothek

Leach, William Elford, 1790-1836

The zoological miscellany being descriptions of new, or interesting animals

Bd.: 1

London (1814)

Zool. 317 m-1
urn:nbn:de:bvb:12-bsb10308016-1